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ANÆSTHETIC AND OTHER NOTES.

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Melbourne.

The following anæsthetic notes and experiences are submitted to the profession in the hope that they may prove of interest to those who have not been so fortunate as to get away from Australia in these epoch-making days, and may possibly encourage others who have not yet been able to go and give a friendly hand of relief to men, many of whom have been away from their practices and families from two to three years. An absence, with all that it means, that can only be fully realized by those who have departed and returned, to find that they have to make a fresh start in the profession, as far as gathering a practice together is concerned!

Surely there are still many men in our profession, men who are still young and between the ages of 30 and 45, men who have had sufficient length of time in practice to gather that experience and feeling of self-confidence in emergency that stands in good stead in these days of stress at the front, to go to the relief of those who have been hard at it for two years or more. Any man, no matter how able, is apt to get stale on his work, possibly quite unconsciously to himself, after a prolonged period on active service; he would be the last to ask for relief, but nevertheless twelve months or more back in his own country and amongst his own people would be a godsend and a welcome rest for mind and body.

The casual eye has not to look far, before the returned man is struck, and not favourably struck, with the number of comparatively young, able-bodied men, between the ages of 30 to 45 years, in the profession in any of our large cities who are not at the front lending a helping hand. Some, and the number is large, have been away and done good work and sacrificed much for their country; but others, and their number is not small, remain. Some are in comparatively soft jobs at home, in Australia, others have failed to realize the grave necessity of the call from over the water. It means sacrifice; but what about the others who have sacrificed their all when the call came, and need rest to-day?

What are the excuses given for not going? They are many. In many there is the legitimate one of having tried but failed to pass on physical grounds; others, "Oh, I am a married man, and cannot leave my wife"; others, "I cannot afford to go"; and yet others, "I have a wife and children and therefore I cannot come." But what to those who have gone? Have they not wives and families and homes? Can they all afford to go? If this war was only carried on by those who could afford to go or who had no wife or family, then it would have been over long ago.

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In anæsthetic work at the base, the general methods employed are those of simplicity. The commonest and generally most useful is the simple open ether. The method of induction may vary in that some men start right off with ether, but as far as the patient is concerned this is certainly not a pleasant method. The length of induction is considerably lessened by the preliminary use of ethyl chloride (open) and chloroform prior to the ether, and the induction, for the patient, by this method is pleasant, in the large majority of cases. The patient is ready for the knife in from three to five minutes from the onset of induction, even in strong, able-bodied men.

Morphine and atropine were generally used in all cases when there was a possibility of severe shock or when the operation was likely to be of a prolonged nature. This use of morphine and atropine is almost universal in severe cases, and is of considerable benefit in reducing shock and lessening any risk of broncho-pneumonia following on the operation. The dose of 0.0075 gramme (⅛ grain) of morphine and 0.0004 gramme ($^1/_{150}$ grain) of atropine was found quite sufficient for any case, though in many cases 0.01 gramme of morphine and 0.0005 gramme of atropine can be given without harmful results of either over-depression of the respiratory centre from morphine or from over-drying up of the salivary secretion from the atropine. If the patient's mouth is feeling too dry from the atropine, small sips of water may be given just prior to starting the anæsthetic, with comfort to the patient and without any harmful results.

The open ether *cum* chloroform *cum* ethyl chloride method is applicable to practically all cases and all temperatures. I have found it equally successful in the over-saturated, moisture-laden climate of the tropical Pacific and in the freezing climate of a winter in the North Sea, or in the summer and in the bitter cold of the recent winter in France and Belgium.

The Shipway inhaler, with its warmed ether vapour, has some advantages over the open ether method in the winter, in that to the man who is not fully acquainted with the open ether-chloroform method it is easier for him to handle, and there is less waste of ether with this apparatus. It has, however, the disadvantage that it is certainly not a pleasant method of induction for the patient as compared with the other method. The ether, when turned on, has a tendency to "grip" the throat and make the patient gasp, even when the apparatus is handled by a man well used to it. I would strongly advise all anæsthetists, when adopting a new method of induction, to have that method tried on himself by an administrator who is accustomed to handling it. For it is only by actual personal experience of these various methods of induction that he can really get an accurate idea of the sensations of his patient.

Of all the various methods of induction that I have personally had experience of, that by nitrous

oxide and oxygen is certainly the most pleasant. It is, however, very closely followed by the open or semi-open ethyl-chloride or somnoform method, which is followed closely by the chloroform method, though to many patients the taste of chloroform vapour is rather too sweet. The direct ether method of induction comes last, especially if the method is at all rushed, and if not rushed then the period of induction is considerably drawn out, and the unpleasantness prolonged.

The Americans, in their base hospitals, largely use the nitrous oxide and oxygen anæsthesia with Gwathmey's apparatus, throughout their operations, but this method has many disadvantages. It is expensive, cumbersome, requires considerable skill to be handled to the best advantage, and does not give the required relaxation, so often required, for abdominal work. It has the advantage that it is very pleasant for the patient during induction, leads to a rapid recovery, and is not often followed by post-operative sickness, though nausea is not uncommon. A word of warning! It is by no means the absolutely safe method that many have been led to suppose.

With the open ethyl-chloride-chloroform-ether method, as employed to-day, the advantages of nitrous oxide and oxygen are now more than equalled. The patient is given a preliminary injection of morphine and atropine in small dose about three-quarters of an hour to half an hour before the operation. He is placed on the operating table with his head slightly raised from 20 to 30 cm., according to what is the most comfortable head position for the patient. The point of inquiring from the patient as to what is the most comfortable position for his head is of no minor importance as far as a pleasant induction goes. Care should be taken to see that there is no kinking of the neck which would interfere with an absolutely free airway. The old "head low" position has been practically abandoned by all experienced anæsthetists, as it only leads to an over-congestion of brain and increases the tendency to struggle during induction.

During induction the patient should not be worried by any unnecessary noise, all light should be kept away from the eyes, and when the patient is fully under, an even anæsthesia is easier to maintain with considerably less consumption of anæsthetic if the eyes are kept well bandaged, so that the influence from light stimulus is entirely removed.

The large majority of operations are performed to-day with the patient in the stage of heavy sleep, and it is only necessary to deepen the anæsthesia in abdominal cases and in certain other operations. Even in these cases the wise anæsthetist will not unnecessarily prolong the very profound, saturated anæsthesia throughout the whole operation, which only leads to over-poisoning his patient, increases the risk of post-operative vomiting and interferes with a successful convalescence. A surgeon, should he require the anæsthesia deepened to any extent, should turn to his anæsthetist and ask him to do so, but that very profound anæsthetic state should not be prolonged longer than necessary.

There are very few operations to-day, with the exception of abdominal, that cannot be done in the stage of deep sleep with marked benefit to all concerned. On removing the bandage from the patient's eyes, he very quickly comes out of his anæsthetic stage. The patient is then placed back in bed with his head comfortably placed on a pillow. Post-operative vomiting is almost an unknown quantity, and it is not at all an uncommon thing for a patient to eat a hearty meal from one-half to one hour after he has returned from the operating theatre. I have not yet seen any case in which shock is increased by this method of operating during profound sleep; in fact, the absence of shock has been one of its most striking features. In any case in which there is a probability of shock, such as amputations, the preliminary small dose of morphine and atrophine was always insisted upon.

At Sidcup, in Kent, a few miles from the town of Chislehurst, is a very interesting military hospital, where all facial injuries are attended to. This hospital is under the able care of Major Gillies, of New Zealand, and it was here that I saw a few cases of rectal anæsthesia by the oil-ether method. For face cases this method is very satisfactory, and is used to a fairly large extent. Here again the anæsthetist must remember that the patient requires careful watching, the same as in any other method. Morphine and atropine are given before operation. The method has the disadvantage that in a few cases a certain amount of rectal irritation may be produced. Care should be taken to watch the respiration, both during and following the operation, until the patient completely recovers, as respiratory depression has occurred more than once after the patient has been removed from the operating table and is back in bed. A visit to this hospital in its beautiful surroundings would well repay any surgeon, for it is only by seeing for oneself that one can fully realize the enormous amount of good work that is now being done in repairing the most unsightly of facial injuries, and the great strides that are being made to-day in this branch of surgery.

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To-day work in the casualty clearing station is far more interesting and important than it was a few months back. Situated as I was for a few weeks, just behind the Ypres salient, during the months of August and September last, the great advance, as far as the welfare of the wounded is concerned, was very evident over the earlier stages of the war.

At No. 12 Casualty Clearing Station we had seven teams working, in addition to the ordinary staff of the hospital. Each team consisted of four persons, *viz.*, a surgeon, an anæsthetist, an operating theatre sister and an orderly. The teams were as follows: Three British teams, two American, one South African and one Australian.

There were two operating theatres, one containing six tables, and the other four. Two teams worked at a time, and in eight-hour shifts, except when a push was on, when we worked for 16 hours straight on end, and then had eight hours off. My hours were fortunate, as our team worked from 5 p.m. to 1 a.m., or, during a push, from 5 p.m. to 9 a.m. By this means I was able to get about a little during the daytime and see something of what was going on. In addition, the hours round about 9 p.m. to 1 or 2 a.m.

were generally those the Hun chose for dropping bombs on the surrounding areas, and, when there is any bomb-dropping going on, it is far better to be busy than lying waiting and wondering in your bed where the brute in going to drop the next; will it fall short or beyond?—is a state of mind that does not conduce to sleep. If you are playing bridge it is most annoying just as you have a grand no-trump call to hear the bombs getting nearer and nearer, and then for someone to jump up and put out the light; it generally interrupts the rubber for the rest of that night. The man who is really at work comes off best. I have known the near explosion of a bomb upset the even induction of an anæsthetic, especially when your patient is not more than two hours from the fighting line and has all the excitement of a recent severe action running through his brain.

Bringing the surgeons up from the base to the casualty clearing station has meant an enormous increase in efficiency and saving of life. Whereas at the base we very often did not get our wounded for from two to three days after the onset of a push, we now got the first lot coming in within two to three hours of the onset, and big operations were able to be performed without the long delay and train journey that would otherwise have taken place. Certainly this bringing up of the surgical teams has been a tremendous advance.

Ypres to-day is a city that does not exist. It is still under constant shell fire, as a fair amount of transport passes through it on the way to the Menin Road, and also towards Zonnebeke. That the post of military police in Ypres is no sinecure is illustrated when one is told that, between the end of July, 1917, and early September, out of the small force engaged in Ypres on police traffic duty there were 61 casualties from gas and shell fire. In my wanderings round this interesting but unhealthy spot I could only find one piece of living plant life in the city itself, and that was a very small sprig of green sprouting out from a shell-shattered acacia tree in the square outside the remains of the Cloth Hall, and though Captain May, a South African medical man, who was with me at the time, looked well for another living tree, we were unable to find it. The whole place is dead and torn; here and there is a solitary military policeman, close by his dug-out, but that is all. Now and again comes the shrill screech of a shell; plump it goes, right into the ruins, and more stone and rubble is brought down. But Ypres itself is dead. It is not an easy city to get into, being out of bounds, and an attempt to get in without permission leads to quite an interesting experience.

The run from Poperinghe to Ypres is about five miles. Poperinghe is an interesting little town, the head of the railway and the scene of much activity. It is within long-range gun-fire, and has suffered in the past; but the town is seldom disturbed to-day, though it is the scene of constant nightly visits from the enemy's aeroplanes. To get from Poperinghe towards Ypres it is necessary for the seeker to have a plentiful supply of cigarettes. With these the driver of any transport will take him as far as Hell, if need be, or at least as far on the journey as he is going. The first trolley carried me halfway to the outskirts of the little village of Vlamertinghe, now in ruins, and here my friend left me to make his way to the salubrious retreat of Rat Farm; but, before departing, wished me luck and said: "You'll be all right, sir, just jump the next bloke that comes along and you'll get to 'Wipers' in time, but it ain't no bean feast you're after; don't cop it in the neck, anyway." My next driver carried me nearly to Ypres, in fact, to the quiet spot of "Hell-fire Corner," which he assured me quite deserved its name. It is here the road divides, one continuing straight on towards Ypres, past the remains of the lunatic asylum, and the other going off to the right, towards Wytschaete and Hollebeke, past Hill 60 and Battle Wood. The problem was now how to get into Ypres without being held up. I was within a thousand yards of the outskirts, but not quite in. Here, almost within stone's throw, stood the ruined towers of the Cathedral and Cloth Hall. Fortunately, coming along the road, and raising clouds of dust, was a small, single-seater grey car, with one man in it. To stand in the middle of the road and pull the driver up did not take long. On enquiring as to his destination, did it happen to be Ypres? "Yes, it did," he was going there to meet the General at the railway crossing; would I jump in? At the crossing he stopped, and told me, after I had a look round, which he would not advise me to take long over, as the town was no health resort, if the car was still there to get in, as the General was a real old sport, and would not mind an extra visitor. However, on my return, the car had vanished. The other side of the crossing I was pulled up by a military policeman on traffic duty, who wanted to know if I had permission to come into the town; it was out of bounds. Was I going in on duty? Where was my tin hat, and did I have my box respirator, both of which luxuries had unfortunately been left behind. Oh, well, then, it was absolutely impossible for me to go in; the A.P.M. would kick up a "hell" of a fuss if he did let me in.

"Surely, lad, you are not going to turn me back now; why, I have come 16,000 miles to see this place." "Oh, you're one of those blanky Australians; I thought you must be something of the sort to want to look round here. This place ain't no sanguinary picnic, you know, and, anyway, there is no way of getting in unless you are on duty." "I see! You want to me to say 'duty,' lad. Allright, I'll say anything you like. Duty." "Very good, sir, you can pass on, and, if you see anyone making towards you, just you take no notice of him, sir. Say 'duty,' and pass right on. But, take my tip, don't go hanging about this place, it ain't no ——— picnic resort."

On my way in I had passed one of our Australian Field Batteries. I was to see them again not an hour later, in different circumstances. They had just pushed out beyond the Dixmude gate, about half a mile, when they were caught by a heavy burst of shell fire, and lost several men and horses and had to return to safer quarters for a time, near the railway crossing. Straight up the road, past the overturned water-tank, towards the remains of the Cathedral and Cloth Hall, we kept close under cover of any sheltering and friendly wall, but the protection is not great, and looks very uncertain in character;

and when a shell lodges against an adjoining wall and crumples it up amidst a shower of dust and rubble, the thought dawns on one that, whatever interest Ypres may have, it is apt to be rather transitory.

Away up above us in the clear blue sky, at a height of some 12,000 to 15,000 feet, are eight beautiful silver dragon flies. What a magnificent sight! Their leader is away ahead, and the rest follow, like a flock of birds. On turning our glasses on them, the black German cross is plainly visible, and we draw near to cover of a friendly policeman's dug-out. It is now getting towards the time of the evening *Straf*, and the M.P. advises a retreat to a quieter realm. We take the hint; things are getting far too lively, if one wants to pay any more insurance premiums on one's life policy. We jump a trolley, say "good-bye" to our friend, the M.P., and wish him the best of luck, and quite agree with him that life in Ypres "ain't no blanky picnic." Soon we pass "Hell-fire Corner" once more, and make rapid progress towards Vlamertinghe, breathing freer with each mile that leaves the magnetic town of Ypres behind.

Of visits to the neighbouring field batteries with some Australian officers from No. 9 Squadron Royal Flying Corps—Burgess, from New South Wales, Watts, from Nairne, South Australia, Moore, from Melbourne, Mackay, an old Geelong College boy—it is not the time or place to speak. Of Pilkem Ridge, now a shell-torn elevation only a few feet in height, one has to be told that "this is Pilkem" to know that it is a ridge, a mere undulating elevation, with every tree torn and shattered, not a vestige of green on any one of them, reminding us of the ghosts of gum trees so often seen in the ringbarked areas of Australia. Of a glorious joy-ride to Dunkerque and a quiet little evening dinner with the Australian lads from No. 9 Squadron Royal Flying Corps, when the friendly Hun came over in a squadron of some twenty machines and gave Dunkerque "hell," just as we had got half way through out quiet little evening meal, but the wine was in and the fear was out, if only temporarily, and the meal was finished, if not in leisure; still, it was finished, and we got our money's worth. Of the ride back to our quarters, a twenty-five mile spin through the fresh night air—away in the distance the flash as each bomb struck home, the constant flashing from the guns like a concentrated display of summer lightning, the fireworks in the air from rocket and flare, the bursting shrapnel fired on the visiting 'planes, it is not now the time to speak; but it was worth it all, and those of our profession who miss those days and nights miss something that they will always regret, when, by their selfishness or inability to go and lend a helping hand, they hang back in Australia. The time has come when marriage or other causes are no excuse for an able-bodied man to fail to relieve some of those who have been two or three years away from their homes and dear ones, two or three years away from their practices, which they will have to start afresh, having found their patients gone to those who stayed at home in a life of comparative luxury and ease, having found that any appointments that may be going, have been allotted to those who have hung back. These men will not ask for help themselves, they are not made of the stuff that does that. But they have earned their rest, and would be the better for a good twelve months or more at home. Two years away from home is sufficient for any man with family ties. He is very apt to get stale on his work quite unconsciously, and a rest would recuperate him and improve his subsequent work. Men over the age of 45 are, as a general rule, far better employed at home at work in Australia. Few are able to stand for any length of time the strain and stress of active service work abroad.

DERMATO-MYCOSIS IN MICE AND MEN.

By **Herman Lawrence, M.R.C.P. (Ed.),**
Dermatologist, St. Vincent's Hospital, Melbourne.

It was with great interest that I read in *The Medical Journal of Australia* of December 15, 1917, Dr. Norman Paul's paper entitled "A Ringworm Epidemic," since I may fairly claim to have been the first to call the attention of the profession in Australia to the fact that the recent plague of mice was accompanied by an outbreak of mycotic skin affection in human beings.

It is some six months since I read a communication to the Victorian Branch, which I called "Dermatomycosis in Mice and Men." This was based on a number of observations I had made on the disease in mice, and at the meeting of the Branch I showed specimens of mice and a number of patients who, I considered, had been infected directly from mice. I also exhibited microscopical specimens of culture growths obtained from both the mice and the men.

About the same time I made a preliminary report to the Victorian Board of Health, in which I expressed the opinion that the disease was the same in mice and in human beings, although at that time it was impossible to be certain of the exact fungus present.

Dr. Paul is apparently satisfied that the organism responsible for the cases under his care was a trichophyton, and one not before described, and for which he proposes the name of *Tricophyton rodens*. It may be pointed out that the author only describes one case in detail, and in this the possibility of infection was 2½ months, less 14 days, or at least 60 days previously, which is rather a long incubation period.

Inoculation experiments in mice show that the incubation period is about seven days, and there is no reason to suppose it is much different from mouse to man.

Some of the fungus growth from a mouse, mixed with a little glycerine and water, was placed upon the skin of a guinea-pig. In seven to ten days a circinate patch about the size of a florin, and completely denuded of hair, appeared at the site of inoculation. Hairs removed from the border of this patch showed numerous spores on them. New hair was forming upon the patch during the fourth week.

Some of the hairs from a kerion-like lesion on the arm of a man suffering with the so-called "mouse disease," were mixed with a little glycerine and water and placed upon the skin of a guinea-pig, and gave, clinically, exactly the same result as that described above of the fungus from the mouse.

White mice free from the disease and kept with field mice suffering from the disease developed the

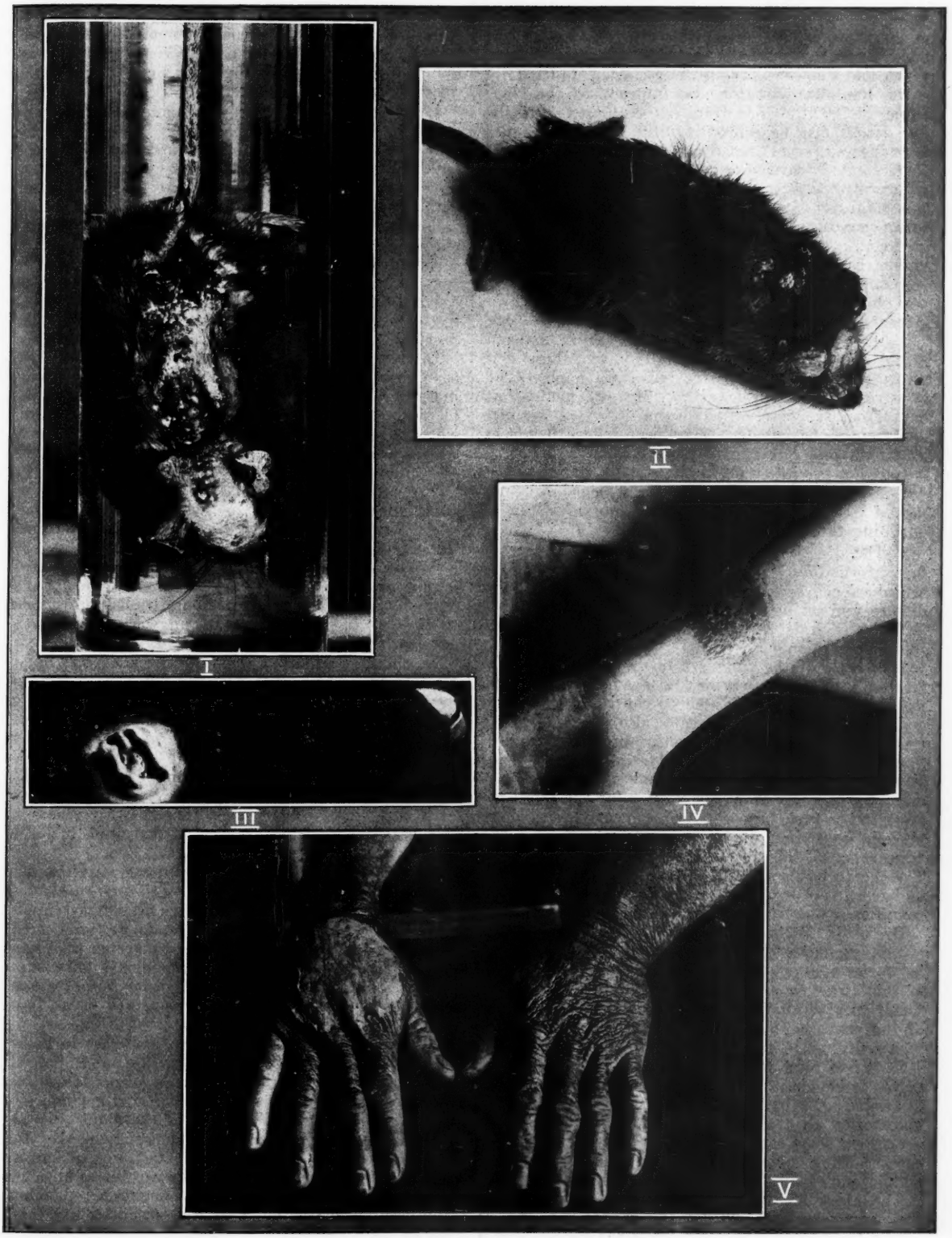

Fig. I. and II.: Affected mice. Fig III.: Growth in tube. Fig IV.: Trichophyton lesion on forearm. Fig. V.: "Mouse Disease"; fungus probably not Trichophyton but Achorion.

small yellow fungus growths within three weeks. I might mention here that about ten days ago I had an ordinary house mouse brought under my notice which had the same fungus disease upon its head.

Dr. Paul states that he has reproduced the ringworm in healthy mice from his cultures. But the question is, has he reproduced the disease the mice are suffering from? Some twenty years ago Dr. J. F. Nelly and I carried out some experiments upon guinea-pigs with a culture growth from a case of *Tinea tonsurans*. We obtained from the same culture growth three clinically distinct results upon the guinea-pigs. They were: (*a*) circinate patches with broken hairs, (*b*) circinate patches of pustular folliculitis, and (*c*) irregular bald patches, as one sees in one phase of the disease in the mice. But we never obtained fungus growths as seen in the mice.

As to the fungus which is the causative factor, I would agree with Dr. Paul that it is something new to Australian dermatologists, but I am not satisfied even yet as to its exact nature. My own inclination, both from the observation of the affection in mice and from its behaviour in man, is to regard it, not as a tricophyton, but an achorion.

It is not my intention in the present paper to put forward in full the observations which have supported this conclusion. I must content myself with outlining their general trend.

1. The disease in mice is singularly suggestive of favus formation. On showing an affected animal to a medical colleague with a special experience of skin disease, and asking him to name it, he at once replied: "Clinically it is favus," and all who saw it gave the same opinion.

If a little of the fungus growth from a mouse is treated with *liquor potassæ* and examined under the microscope, the mass is seen to consist of mycelium and spores, together with scales also present, and in many ways resembles the structure of a *Favus scutulum* under the microscope. Mycelial threads occasionally divide into three or four branches, each terminating in a row of spores, resembling the condition described as favic tarsus. One sees nearly everywhere mycelia consisting of jointed rods which have the appearance of the metacarpal or metatarsal bones. The sheath connecting the filaments of the mycelium is hard to recognize. Many oval and irregularly round spores are to be seen.

Dr. C. H. Mollison, who has kindly examined one of my specimens of the mouse growths, states that he is of the opinion that the microscopical appearance of this structure corresponds definitely with the description given in Curtis's "Practical Bacteriology" of the microscopical appearances seen in a portion of a scutulum of favus.

2. It is a fatal affection for mice, and generally of more severe aspect than ringworm of ordinary types.

Twelve mice with this disease under my personal observation all died apparently from the disease, the growth in some cases entering by the orbit, in other cases causing amputation of the limbs or the tail, and in one case eating through the superior maxilla.

The mice nibble the fungus growths off one another, and, as this growth presses deeply into the skin, it causes the part to bleed. Then, if the mouse is in a weak condition, the other mice set to work and devour him. As even the common moulds may cause fatal gastro-enteritis in animals, it is more than likely the ingestion of this fungus growth has a similar effect upon the mice.

3. The growth shown in the photograph was obtained by Kral's method of crushing a portion of the growth into powder, and dusting upon 2% beef peptone, and then picking out the likely growths. It was snow white in colour, fairly rapid in growth, and with definite formation of folds, the underside being yellow to yellow-brown. Blue litmus paper moistened and placed upon the under surface of the culture turned red.

4. In human beings the clinical manifestations have differed somewhat from ordinary trichophyton lesions. For example, Mr. D., sent to me as a case of "mouse disease," showed a circular lesion on the forearm.

He had not been in contact with mice, but had been handling rabbit skins, and a microscopic examination established an undoubted trichophyton infection. Microscopical examination of a culture, which was a yellowish-white growth being covered with a white powder, showed spirals, septate spindles and budding, as seen in the trichophyton.

The attached photographs of a genuine infection from mice do not show such an undoubted "ringworm" appearance. They are less definite in outline, less circular in appearance.

Sabourand and other authors describe skin lesions simulating *tinea circinata* and infections of the hair simulating typical kerion, and indistinguishable to the eye from those due to ringworm, but which are really due to the organism of favus.

In the case of Mr. A., on the back of one hand was a very extensive circinate red patch, with numerous pustules; at many of the follicular openings were pin-head-sized, scutula-looking bodies; these were pierced by a hair. Examined in *liquor potassæ* the fungus was seen microscopically to be growing freely on the under surface of these accumulations. The dorsal surface of the other hand and forearm were covered with scale without much inflammatory reaction. The scales showed the presence of mycelium in large quantities.

As to the particular variety of fungus, it seems that it is most probably the *Achorion (Oidium) quinckeanum zoph.*, a fungus causing *favus herpeticus* (favus fungus of Quincke). This suggestion was concurred in by Mr. C. E. Brittlebank, the Government Vegetable Pathologist, Melbourne, who also kindly supplied the following reference: *Oidium quinckeanum zoph.* (fungus causing *favus herpeticus*—favus fungus of Quincke).

It causes, according to Quincke, a disease in hairy or hairless portions of the human skin, and, judged by its symptoms, is midway between *herpes tonsurans* and *favus vulgaris*. These in the affected portions develope spots (mostly beginning at the hair follicles) herpes-like, reddened and desquamating, of the size of a *Pfennig*, or even a dollar (farthing to half-a-crown), and larger, which, under certain conditions, exhibit in the margin more pronounced reddening and swelling of the cutis, as well as blister-like raising of the epidermis.

Around each hair follicle a little shield (scutula) is formed, rich in the elements of the fungus. The latter, however, does not, like *Oidium schoenleinii*, enter the hair follicles themselves, but appears to proceed from the openings of the latter.

"Pure culture" is in this species, on the whole, the same as in the case of the former (*Oidium schoenleinii*) [the translator]. The present organism developes on the surface of the meat-peptone-gelatine medium, a snowy white, felt-like, tough mycelium, which finally becomes on the under side sulphur-yellow to yellow-brown, and inclines towards the formation of "folds." On the mycelium threads (1.5 to 2 microns in diameter) the conidia are constricted (*abgeschnürt*) in the manner peculiar to oidium.

Quincke has also observed spindle-shaped, septated (?) bodies, treated by him as *macroconidia*.

Inoculation with pure cultures of man, dog and mouse gave positive results; in the case of man the impression made was that of original disease.

With the provisional hypothesis that the disease in mice is favus, and that the organism is probably the *Achorion (Oidium) quinckeanum*, I am still engaged in further observation, which I propose to embody in a future paper.

I wish, meanwhile, to thank Mr. C. E. Brittlebank for the interest he has taken in this investigation and the trouble he has gone to in making special observations.

Reports of Cases.

TWO RARE AND INTERESTING NERVE CASES.

By **J. E. Piper, M.D.,**
Geelong.

The first case was one of acute ascending myelitis. The diagnosis of the second is open to discussion.

In the first case, the patient was a young man, *aet.* 32 years, of large stature. He was subject to rheumatism, and had been operated on for hernia and ingrowing toe-nails. But usually his health was good. For about three weeks previous to the onset of his spinal trouble, he had had an attack of bronchitis, with asthmatic manifestations, the latter being a family complaint. He refused to remain in bed during this attack, although he had had fits of coughing and difficulty in breathing at night time. He came to me on Monday morning, stating that he was arranging to go away to Tasmania for a holiday, and expressing a deep fear that he was going to become a chronic asthmatic. On Tuesday, at about 12.30 p.m., while he was talking in the street, he noticed a numbness in his right heel, and some cramp-like pains in the abdomen. He walked to his home, which was a mile away, and said afterwards that he thought he could have walked another mile. I saw him immediately, and he complained of very severe pains in his abdomen, with numbness in his legs. I gave him a mixture containing *tinct. opii*, which relieved the pains in the abdomen, but he began to lose the power in his legs. At 7 p.m. he could not move either of his lower limbs. At 12 midnight he was completely anæsthetic from the level of the tenth dorsal segment, and there was an absence of all reflexes below that level. He had retention of urine and fæces. At 5 a.m. Wednesday morning the anæsthesia was up to the level of the sixth thoracic segment, and there was some hyperæsthesia at that level. At midday the anæsthesia was at the fourth dorsal segment, at which level it seemed to stay. Towards evening he complained of a tingling sensation on the medial side of each elbow, and also of a burning pain low down in the back of the neck. His breathing was very bad, purely diaphragmatic, and there was an accumulation of mucus in his throat, which distressed him a great deal. About 10 p.m. an injection of 0.0006 gm. (gr. $^1/_{100}$) of atropine gave him great relief, and this dose was repeated every four hours. His arms at this time were adducted to his chest, and some force had to be used to get them in a state of abduction. He had a fair night, sleeping at intervals, more particularly after his atropine injections. On the Thursday his upper limbs became paralysed, with the exception of those muscles supplied by the higher cervical nerves of the brachial plexus. He still had retention of urine and fæces. His arms were anæsthetic in places, but it worried and distressed the patient too much to allow any accurate estimation of the anæsthesia to be gauged. At 10 p.m. on Thursday evening he expressed himself as feeling much better, and said that he thought he had some feeling in his toes, but on examination they were completely anæsthetic. Nevertheless, he was sure that they felt different, and he expressed the opinion confidently that he would be able to move his legs in the morning. Nothing particular was found from a lumbar puncture. At 10.30 p.m. he had an involuntary evacuation of fæces. At 11.30 he asked the nurse could he not have the injection of atropine, but was told it was not due for 30 minutes. He asked if it could not be antedated, and expressed his thanks on being promised ten minutes off the time. He suddenly stopped breathing and died at 11.45 p.m. on Thursday evening.

The second case was in an old lady of 75 years. She had had an attack of bronchitis, and had been sitting out of bed for two days. On the afternoon of the second day, September 18, she complained of weakness in her left hand. She went to bed, feeling otherwise well. Next morning the left upper limb was almost powerless. The sensation in the arm was good. She was also complaining of pain in the left heel, a feature noticed early in the other case. There was some weakness in the left leg. Next morning, September 20, both legs were very weak, and the patient could not lift them off the bed, but could move them a little from side to side. The reflexes were hard to obtain; there was also some weakness in the right upper limb. On September 21 the paralysis was spreading in both upper and lower limbs. On September 22 the right upper limb was almost useless. She could move some of the shoulder group of muscles, but could not move the lower limbs in any direction. There was no sensory involvement whatever, and no loss of sensation to heat or cold, to touch or to position of the limbs. All the superficial and deep reflexes were absent below the level of the fifth cervical segment. Thus, in five days, the patient had developed a complete flaccid paralysis of all four limbs, without any sensory involvement or any affection of the sphincters. All the muscles supplied by nerves below the fifth cervical segment were paralysed. On September 23 the patient complained of pain in the left upper limb, and on the following day in the left lower limb. On the 27th she had pain in the right lower limb. It is to be noticed that pain of a neuralgic type occurred in the limbs in the order of their paralysis.

Up to September 30 the mental condition of the patient had remained good, but owing to worry she was delirious part of the day. There was no spreading of the motor involvement. During the first fortnight in October, her physical condition did not change perceptibly, although her mental condition varied. On October 21 the patient had developed a cough, and moist sounds were detected in her lungs. She had had some difficulty in swallowing, and it is probable that some fluid may have entered the trachea. Like the first patient, she was unable to cough, and her breathing was purely diaphragmatic, which made her incapable of using any expiratory force.

Two days later the patient was troubled a good deal with mucus in the throat. On October 24 and 25 this symptom caused much trouble. On the 26th she was given injections of atropine, 0.0006 gm. (gr. $^1/_{100}$). This gave her considerable relief. Her condition remained unchanged during the following days, save that she was becoming considerably weaker. On October 30 she died.

Excepting for the last two days, there was no incontinence of urine or fæces, the only trouble in that direction being an intense desire to micturate on September 23. No urine was obtained on catheterization. There seemed to be an almost complete suppression of urine for nearly twenty-four hours, and hot packs were applied to the kidney regions.

On September 24 there was an increased flow of urine, with amelioration of the pain, and the trouble quickly subsided.

The patient had been treated for high blood pressure some time previously, but she tired of the treatment, and more recently she had refused to take any medicine.

The chief points in this case are:—

(1) The peculiar creeping onset.
(2) The motor paralysis.
(3) The absence of sensory involvement.
(4) The absence of loss of organic reflexes.
(5) The paralysis was confined to the limbs and trunk.
(6) Age of patient, with her vascular disease.

The first patient died apparently as a result of an involvement of the phrenics, in the second case death was brought about by a deglutition broncho-pneumonia.

Reviews.

THEORIES IN PSYCHOLOGY.

A second edition of "Collected Papers on Analytical Psychology," by C. G. Jung[1] includes two chapters in addition to the original papers of the 1916 edition. Jung considers that neuroses and mental disorders are due to disturbances in the psyche caused by conflicts between the conscious and the unconscious. Those who have read Jones's and Freud's literature on the same subject, will be familiar with the term conflict which these writers attribute to sexual origin. Jung says that this book is not for beginners in the study of psycho-analysis, but is for more advanced pupils. Because he fails to appreciate the pathological changes which a number of investigators have found and described in insanity, the author considers that the cause of mental aberration is to be found in disorders of the soul. He ignores the works of Lugano, Mott and others, who have demonstrated the evidence of nerve degeneration in these patients by the aid of microscopical sections and systematic study of hereditary charts, and seeks the explanation of these diseases in the regions of the problematical and unknown. His method of reasoning is very ingenious. Whenever he is faced by a difficulty in explaining the analysis of a dream he arbitrarily makes rules to square the ledger to his own satisfaction. The chapter on "Number Dreams" is manifestly absurd, but the "Explanation of the Psychology of Occult Phenomena" is clever. In the first edition the author acknowledges a difference of opinion between his school, the Zurich, and Freud's school, the Vienna, and in the second edition, Adler, a pupil of Freud's, is quoted as having yet another theory quite different from either that of Jung or that of Freud. Adler's theory is the power theory which he advocates in opposition to the sexual theory of other psycho-analysts. The "Psychology of the Unconscious Process" and "The Conception of the Unconscious" are the two new chapters in which the author introduces new terms, rules, and theories in bewildering profusion and illimitation. The reading of this book will cure many of any tendency to regard the psycho-analysts as authorities in nerve and mental diseases.

LABORATORY GUIDE IN ORGANIC CHEMISTRY.

The manual of organic chemistry[2] by Professor M. Steel is intended as a laboratory guide for medical students. The recent development of biological chemistry had created a demand for a broader training in experimental organic chemistry than was formerly required of medical students. In this manual an attempt has been made to supply this additional information without burdening the student with a mass of unessential data. The experiments have been selected in the hope that they will be of a real value to students of medicine.

The book is divided into seventeen chapters. The first two chapters deal with the detection of elements in organic compounds and with the methods of purification of these bodies by precipitation, crystallization, distillation and separation by the agitation of immiscible liquids. In the description of each experiment definite quantities of the substances used are given, so that there will be no waste of material and a successful conclusion to the experiment. The subsequent chapters deal with the aliphatic hydrocarbons, the halogen derivatives of the paraffins, alcohols, ethers, aldehydes, fatty acids, acid chlorides, acid anhydrides, mercaptans, amines, amides, cyanogen compound, lipins, carbocyclic compounds, heterocyclic compounds and monobasic unsaturated acids. In connexion with these groups, the experiments describe the preparation of various substances, as chloroform, acetone, ether, acetamide, urea, phenol, phenylhydrazine, aspirin and aniline. The principal reactions of the members of these series are set forth, and special tests are devoted to the reactions of those substances which are of importance in medicine. Thus a complete lesson is devoted to formaldehyde and its detection in milk and other organic fluids. Another lesson deals with acetone, diacetic acid and the hydroxy-acid. An exhaustive series of tests are described in connexion with the carbohydrates and glucosides, the proteins, the vegetable alkaloids and the neutral fats.

The work of this course seems to consist of an elaborate series of test tube experiments, in addition to some useful preparation of organic substances. Quantitative determinations of organic substances do not appear to have been introduced into this course. This seems a pity, as the medical practitioner needs to make quantitative measurements if he is to make much use of clinical chemistry in his practice. The experiments are described in concise language, and the descriptions are evidently based on practical experience in carrying out the tests. The book is inter-leaved, so that the student may make notes during the progress of his work. The introduction of questions at the end of each experiment stimulates the student to connect his practical instruction in the laboratory with his gradually accumulating knowledge of organic chemistry.

[1] Collected Papers on Analytical Psychology, by C. G. Jung, M.D., LL.D., Authorized Translation, Second Edition; edited by Dr. Constance E. Long; 1917. London: Baillière, Tindall & Cox. Demy 8vo., pp. 492, with illustrations. Price, 15s. net.

[2] A Laboratory Manual of Organic Chemistry for Medical Students, by Matthew Steel, Ph.D.; First Edition; 1916. New York: John Wiley & Sons, Inc.; London: Chapman & Hall, Limited; Royal 8vo., pp. 193. Price, 6s. net.

AUSTRALIAN ARMY MEDICAL CORPS COMFORTS FUND.

The Honorary Secretary of the Northern District Medical Association has forwarded a cheque for £15 as a donation to the Army Medical Corps Comforts Fund. We gratefully acknowledge the receipt of this munificent gift, and hope that it will encourage similar bodies to follow in the footsteps of the Northern District Medical Association.

	£	s.	d.
Amount previously acknowledged	121	1	0
Northern District Medical Association (Tamworth, N.S.W.)	15	0	0

VENEREAL DISEASES REGULATIONS OF TASMANIA.

The following additional Regulations, to be read with the Venereal Diseases Regulations, 1917, are published in the *Tasmanian Government Gazette* of February 5, 1918.

The Regulations come into operation on September 1, 1918.

15. The Chief Health Officer shall, on receipt of a claim for remuneration from any medical practitioner for the free examination or free treatment by such practitioner of persons pursuant to Part IIA. of the Act, within three months of such examination or treatment, and upon receipt of full particulars regarding each case, including the name and address of the patient, pay a reasonable remuneration for such examination or treatment: Provided that no such payment shall be made unless the Chief Health Officer is satisfied that the patient in question has not sufficient means to pay for examination or treatment.

16. The Minister, on the recommendation of the Chief Health Officer, may authorize the payment of a reasonable remuneration to the medical officer of any hospital for the examination and treatment of cases of venereal disease at such hospital.

17. A fee of two shillings shall be paid by the Chief Health Officer to medical practitioners for each case of venereal disease notified to the Chief Health Officer pursuant to Section 41 (*f*) of the Act: Provided that such practitioner is not receiving remuneration from the State for treatment of such case.

The Medical Journal of Australia.

SATURDAY, FEBRUARY 23, 1918.

For the Sake of a Principle.

The medical profession and the public are in danger of being mystified by the introduction of politics into the movement for the reorganization of lodge practice in Victoria. It is readily understood why those friendly societies who are short-sighted enough to resist the introduction of satisfactory conditions for lodge surgeons, resort to Parliament and conjure with Ministerial intervention. They reckon on sympathy when they can demonstrate that withdrawal of the medical profession must result in the limitation of their usefulness. Everyone is aware that the most irresistible bait to candidates for membership of the friendly societies is the provision of medical care during sickness. But justice demands that, if the medical profession is to play a great economic rôle in the expansion of the societies, the fundamental principles on which the relations between the lodge patient and the lodge doctor are based must be economically sound and equitable. It is irrational to lose sight of the fact that contract practice is an expedient introduced and maintained for the purpose of guaranteeing skilled attendance during illness or disability resulting from accident to those whose means are insufficient to pay the ordinary fees of private practitioners. We have shown in these pages that contract practice replaced the old haphazard method, by which the poor obtained medical assistance as a charity, unless they failed altogether to secure it. While the eleemosynary element has been to a great extent eliminated by a system of small regular payments, the price paid by the individual claiming medical attendance of the lodge doctor is necessarily a much lower one than he fixes as the value of his services. The friendly societies argue that medical practitioners can make a good living from lodge practice, and that a large number seek it. A good living can only be made under the old terms of contract when a practitioner accepts such large numbers of members on his lists that he cannot possibly accord them satisfactory attendance. The spirit of lodge practice embodies a material concession in favour of the less well-to-do. That concession, however, should be regulated, not by any actuarial calculation, based on the amount of time, skill, knowledge and energy expended by the doctor, but on the financial position of the persons to be assisted. It therefore follows that the insistance on the income-limit provision contained in the model form of agreement is fundamental, and its abandonment would involve a relinquishing of the first principle on which contract practice should be based.

The politician not unnaturally endeavours to force arbitration on the medical profession, with a view to a concession in regard to the *per capita* contribution. It is suggested that the friendly societies would lose members if the rates were raised, and, consequently, the doctors would earn less from the societies. It is evident that the advocates of this proposition refuse to regard lodge practice as it should be regarded, an expedient to enable persons of small means to obtain medical attendance without financial embarrassment. It is no part of the duty of the medical profession to allow itself to be exploited, so that the friendly societies may gather in ever-increasing numbers of the community. There can be no loss to the practitioner if fewer persons take advantage of the contract system, for in these circumstances the proportion of those paying ordinary fees as private patients increases. But even if it meant an increase of entirely unremunerated work, the profession would be prepared to face it, in order to establish the principle that the medical contribution should be measured in accordance with the means of the great majority of the wage-earners. Every medical practitioner in Victoria to-day knows that his duty to his profession and his colleagues and to the community is to accept the principle embodied in the terms of the model lodge agreement, even if it should involve a temporary sacrifice. The practitioner who ignores this principle and seeks to obtain an advantage over his loyal colleagues—an advantage, be it noted, that is illusory—places himself outside the pale. The public soon learn that the work of this kind of man is in keeping with his conscience, and that he who defies his col-

leagues and sells his good name, is not an individual to be trusted as a family doctor. A reputable practitioner gives his best services alike to his private patients, to his lodge patients and to his hospital patients, while the practitioner who is prepared to sacrifice a principle necessarily allows his dealings with the public to be guided alone by the consideration of monetary returns.

Since it is out of the question that the medical profession could compromise in any particular in this connexion without the abandonment of an important principle, it is essential that the unanimity which characterized the first stage of the movement should be maintained. No poor person will suffer any hardship by the introduction of the model lodge agreement. By solidarity and oneness of purpose the doctors can and will prevent the friendly societies from exploiting the medical profession.

FOOD POISONING.

The recent reports in the lay press of a number of cases of poisoning ascribed to putrefied or decomposed foods remind us of the comparative rarity of descriptions and discussions of this condition in the medical literature of the Commonwealth. The absence of references to ptomaine poisoning is, doubtless, due to the close clinical resemblance of all these cases. The patients show, during the attacks, no signs or symptoms which are not well known to all medical practitioners. They are either hurried to hospital or treated by the general practitioner in the home. In the course of a few hours the patients are dead or have made a complete recovery. Treatment is directed to the rapid evacuation of the poison by emesis or purgation and to stimulation of the action of the heart, of the depth of respiration and of the exhibition of nervous reflexes. No attempt is made to neutralize the poison already absorbed. Physicians have, indeed, no information of the nature of the poison. They may be aware that bacteria lead to the decomposition of foods, but the putrefaction is already accomplished.

It seems advisable that an endeavour should be made to learn what are the toxic substances at work in these patients. When the sufferer dies, the services of the Government Analyst may be used to examine suspected articles of food and the contents of the stomach and intestine, but he is only asked to find out whether the poisoning is due to decomposition of the food or to the presence of some mineral agent. When the patient recovers, the physician is satisfied that all's well that ends well. Even when the patient is admitted to a public hospital, the pathological chemist is not asked to analyse the poisonous food, the material found in the alimentary canal, or the blood. There are chemists in the Commonwealth who would be glad to employ their knowledge and skill in identifying the toxic matter present in these cases. Until the nature of the poison is identified, it will not be possible to consider how the poison may be rendered innocuous in the blood or tissues. Without the aid of the medical attendant the chemist will not obtain the material for examination. The physician is aware of the need of this information, and might do well to advise obtaining the services of a chemist in all cases of food poisoning.

THE FATE OF STRYCHNINE IN THE ANIMAL BODY.

An illustration of the fact that the methods of investigation and the proofs of a problem deemed satisfactory by one generation may be found inadequate at a later date, is furnished by the history of our knowledge in respect to the fate of strychnine in the animal body. When drugs, such as those containing arsenic, mercury or other pharmacologically active chemical element, are given to a person or animal, the elimination of the element is determined by analyses of the fæces, urine and other excretions. As the element is indestructible, its isolation can be accomplished by drastic means. Our acquaintance with the chemical properties of any particular element is now sufficiently extensive to permit of its ready detection in the excretions of animals and of its measurement with some degree of accuracy. If the amount of the drug administered be known, the proportion of the dose remaining in the tissues can be calaculated when the quantity in the excretions has been ascertained. Evidence is obtained in this way about the presence or absence of the element in the body and in the excretions, and about the speed of its elimination from the organism, but little information will be acquired about the changes in the compounds containing the element during its passage through the living tissues. The element may be administered as some particular salt which may undergo double decomposition with the hydrochloric acid or some other material in the gastric contents, may appear in the blood in some other form, may be bound to the cellular tissues in yet another combination, and may reach the excre-

tions oxidized, reduced or altered in different ways. It will be isolated by the biochemist in some combination determined by the chemical properties of the element and, only to a slight extent, by the nature of the excretory product.

In the case of drugs, such as strychnine or morphine, the complexity of the problem is increased by the possibility of the conversion of the organic substance into some other compounds possessed of quite different chemical properties. Strychnine has been considered by many authorities to be an example of an organic substance which enters into the body, raises the excitability of certain portions of the central nervous system without giving any sign of its presence in these tissues, and leaves the organism by the urine. The elimination is usually described as occupying a number of days. As a matter of fact, these beliefs are based on the supposed isolation of seven-tenths of a dose of strychnine from the urine passed during a week or more after the administration of the drug. Some writers have suggested from this observation that strychnine may undergo oxidation in the animal body.

Recently R. A. Hatcher and C. Eggleston have completed an investigation[1] designed to measure the approximate rate of elimination of strychnine from the body. Their studies have been made on cats, dogs and guinea-pigs. Instead of estimating the fraction of a single dose of strychnine that could be recovered from the excreta and then assuming that the remainder of the dose had been destroyed in the body, they have determined the maximal frequency with which a sub-lethal dose of strychnine could be repeated for a prolonged period in such a way as to get prompt absorption into the circulation without causing death. They have found that amounts equal to twenty-five times a single fatal dose can be given in twelve days without any perceptible lasting effects. Only a small percentage of strychnine so administered could be isolated from the urine, while no alkaloid could be detected in the fæces. Forty-eight hours after the last dose no strychnine could be found in the urine. The animals exhibited no toleration against strychnine after these repeated injections, the lethal dose at a single injection remaining the same as in untreated animals. Attempts to isolate strychnine from the bodies of these animals have not been successful, when three hours have been allowed to intervene between the administration of the last dose of the drug and the chemical analysis of the whole animal except the skin. These facts demonstrate the rapid disappearance of strychnine in the bodies of dogs, cats and guinea-pigs. Perfusion of the liver of the dog and guinea-pig with defibrinated blood or Locke's solution to which strychnine has been added, has been practised by these investigators. About two-thirds of the quantity of strychnine added to the perfusion liquid disappears altogether. About a quarter of the added strychnine is stored in the liver, while the remainder can be recovered from the perfusion liquid. The strychnine stored in the liver is so loosely bound that it can be removed by perfusion with an amount of Locke's solution equal to several times the weight of the liver. When strychnine is added to defibrinated blood or hashed liver tissue and the mixture incubated for hours at the temperature of the animal body, no considerable destruction of strychnine can be observed. Occasionally, a small amount of strychnine disappears under these circumstances.

It will be observed that the method of administering strychnine to the animals in these experiments is similar to that followed in medical practice. The drug is given to patients in repeated small quantities, which produce slightly increased reflex excitability, with a tendency to the occurrence of muscular twitchings when the doses follow one another too closely. Under these circumstances the drug appears to be destroyed in the body. Strychnine neither accumulates in the tissues nor passes into the urine in more than traces.

In this study the authors have employed biological methods for the estimation of the impure alkaloid separated from the different extracts. They have found that they could rely on the results of subcutaneous injections into frogs, provided that the concentration of the solution of strychnine, as well as the dose, received attention. In their experiments they had sufficient material to inject several frogs, and thus avoid any error due to a single injection with doubtful response.

This investigation opens up new fields of research, and it seems probable that information in regard to many other drugs might be acquired by experiments planned on similar lines.

[1] *Journ. Pharmacology and Experimental Therapeutics*, October, 1917.

SALE OF INTOXICANTS.

A Select Committee of the Senate of the Commonwealth of Australia has been collecting information about the sale of intoxicants, particularly in regard to its effect upon soldiers. Many of those who devote special attention to the improvement of their fellows state that most social evils are due to excessive indulgence in alcoholic liquors. They appear unaware of the fact that poverty and crime abound in countries in which alcoholic beverages are not consumed. Attention may be directed to some evidence furnished on oath to the Committee by the Commandant of the Third Military District of the Commonwealth, that drink was not responsible for a large proportion of the desertions from duty, that there was no greater percentage of drinkers among soldiers than among civilians, that the "temperateness" of the younger branches of the service was remarkable, and that he had been told by the officer commanding the camp for venereal diseases that over 60% of the patients suffering from venereal diseases were men who were total abstainers or distinctly temperate. The belief that men in military service are specially prone to excessive indulgence with alcohol has led many to advocate that no publican be permitted to supply an intoxicant to a soldier in uniform. Against this proposal, it has been urged that soldiers, doing their duty to their country, would resent being subjected to restraint while other men who have not enlisted are allowed to enter licensed premises and to partake of what they wish.

Abstracts from Current Medical Literature.

DERMATOLOGY.

(66) Skin Diseases and their Treatment under War Conditions.

The losses to the army occasioned by diseases of the skin have been considerable in the present war, and have become a serious problem when the maintenance of man-power is imperative. (Henry MacCormac, *Brit. Journ. Dermatology and Syphilis*, September, 1917). As in past wars, scabies holds a foremost position amongst the dermatoses of the present campaign. In Base Hospital B. the average period that the patient remained under treatment, when the scabies was complicated with severe pyodermic infection was 31.7 days. Scabies, as it occurs amongst the troops in France, often presents unusual features, and causes difficulty in diagnosis. It is noted that the hands are often entirely free from lesions and that the interdigital burrows are only present in a small percentage of cases. The lesions produced by pediculi may closely simulate those of scabies, but the penis, which is so frequently attacked in scabies, is never affected, and the presence of papules or crusts in that situation is of the greatest help in forming a diagnosis. Impetigo of the buttocks is pathognomonic of scabies, and patients with boils should be regarded as suspicious. The impetigo is of an echthymatous type, and is also frequently present over the elbows and knees. True impetigo contagiosa, not complicating other conditions, is rare, and usually corresponds to an echthyma. The sites of predilection are the legs and thighs. The elementary lesion is an ulcer with undermined edge, covered by a thick black crust which exudes pus on pressure. Streptococci obtained from the lesions have been found to be of the fæcal type. After the disease has been cured, pigmentation and scarring may remain, and not infrequently the disease is followed by a papillomatous or warty growth resembling verrucose tuberculosis. Treatment is slow and difficult. Fomentations for a few days, followed by perchloride dressings, give good results, as also does 3% silver nitrate dissolved in *Spirit. aether. nitrosi.* The latter may be used either alone or in combination with the above treatment. Vaccines, both autogenous and stock, have proved to be of no avail. Seborrhœa, with its frequent recurrences, has proved more resistant to treatment than any other class of cutaneous affection met with in the army. It tends to pass through three phases, all of which may be present at the same time. First, a dry, erythematosquamous condition. Secondly, eczematization, characterized by the presence of weeping surfaces, usually limited to the scalp. Thirdly, a condition of impetiginization from contamination with streptococci. As a preliminary to treatment the scalp should be shaved, and even when impetiginized, treatment should be directed against the eczematous condition. In the early stages lint, saturated with calamine liniment, acts admirably, and can be later followed by stimulating remedies, cautiously applied.

(67) Urticaria Pigmentosa.

M. B. Hartzell (*The Journal of Cutaneous Diseases.* November, 1917) states that although *Urticaria pigmentosa* usually occurs in infancy and early childhood; there is an appreciable number of cases commencing in later life. In confirmation of this, he quotes amongst others Graham Little, who compiled statistics, which showed that the disease manifested itself at or after puberty in 14% out of 142 cases. The majority of the cases occurring in later life conform to the usual type, but occasionally cases arise which present unusual features. In adults, the eruptions are, for the most part, macular in type, the urticarial symptoms are generally either mild or may even be absent, and the xanthelasmoid type, which is characterized by yellowish infiltrated lesions, is seldom to be observed. After summarizing the literature of some of the more atypical cases, the author then reports two cases occurring in adults which came under his own observation in the past year and which presented unusual features. One of the patients exhibited an abundant and widespread eruption, the only region unaffected being the face. It consisted of small, round and oval, brownish and brownish-red macules, together with some very slightly elevated maculo-papules. There were no subjective symptoms. The lesions, more particularly the red ones, became slightly elevated after friction. There was an attack of "hives" lasting two weeks at the commencement of the malady five years ago, but this was the only urticarial attack to be observed throughout. At a distance the eruption closely simulated a maculo-papular syphiloderm undergoing involution, but the Wassermann reaction was negative, and the clinical diagnosis was verified by the microscopical examination. The second case occurred in a female aged 26. The eruption had been present for seven years, and during this period there had been no urticaria, or subjective symptoms. The cutaneous lesions were scanty, and consisted of small, oval and round, brownish macules, some of which were slightly papular. They were confined mainly to the flexor surfaces of the forearms, but there were also a few spots on the malar eminences, the chest, legs and feet. From the first case a maculo-papule was excised, and the microscopic examination disclosed in the epidermis a moderate intercellular œdema, with considerable acanthosis, and vacuolization of some of the cells in the central portion of the rete. In the lower layers of the rete there was a considerable amount of pigment, which was not uniformally distributed along the line of junction with the papillary body, but was most abundant at the bottom of the interpapillary prolongations, and entirely absent in other parts. There were present in large numbers in the papillæ, and more especially in the subpapillary portion of the corium, mast cells of large size, the majority of which were round or oval in shape, whilst there were occasional branched or spindle shaped cells. A noticeable feature was the presence of numerous granules outside the cells, and in places remote from the cells, which stained like the intracellular granules, and doubtless were derived from mast cells, many of which exhibited signs of degeneration. Graham Little and Raymond attribute the pigmentation as being largely, if not entirely due to the accumulation of mast cells, but unstained sections demonstrated that it was due to the presence of pigment granules in the rete and upper portion of the corium, and that it was entirely independent of the presence of mast cells. The author dwells upon the insignificant role often played by urticaria in the symptomatology of the late cases, and concludes by stating that even with the presence of wheals the pruritus may be trivial, and not infrequently absent altogether.

(68) Congenital Radio-ulnar Synostosis.

George F. Thomas (*Amer. Journ. Roent.*, November, 1917) reports three cases of this conditions. He divides, like Wilkie, the cases into two types. He points out that no sharp line of demarcation can be drawn between the two. In one class the radio-ulnar fusion is associated with congenital dislocation of the head of the radius. In this type the head of the radius is more or less normally developed, and the point of fusion is below the head. In the second type, considered the primary or true radio-ulnar synostosis, the upper end of the radius is not fully developed, but is fused to the ulnar.

(69) The Caliper Method of Foreign-Body Localization.

E. S. Blaine (*Amer. Journ. Roent.*, November, 1917) describes fully the caliper of Fuerstenau and its method of use, together with the points to be observed to obtain accurate results. It is a method depending on triangulation and is adapted for rapid localization. It is essential that it should be used at only one distance from anode to plate plane (60 centimeters) and with only one amount of lateral shift of anode (65 millimeters). The essential point for accurate work is the obtaining of the central ray in a vertical plane to the plate for the first ray. Numerous diagrams illustrate the exact mechanism and method of reading results, etc.

BIOLOGICAL CHEMISTRY.

(70) Liberation of Adrenalin.

G. N. Stewart and J. M. Rogoff have investigated the relationship between the spinal cord and the spontaneous liberation of adrenalin from the suprarenal capsules (*Journ. Exper. Medicine*, November, 1917). The proof that the spontaneous liberation of adrenalin from

the capsules depends upon the integrity of the nerve supply of these organs, has directed attention to the central nervous mechanism controlling the secretion of this hormone. Section of the spinal cord in the cervical region, even as low as the last cervical segment, does not appear to interfere in any way with the liberation of adrenalin. Samples of blood from a pocket in the inferior cava of a cat have been tested on preparations of the uterus and intestines of rabbits, and estimations of the quantity of adrenalin have been also made by colourimetric assays. The amount of adrenalin has appeared the same before and after the division of the cervical spinal cord. On the other hand, section of the spinal cord in the dorsal region has abolished the liberation of adrenalin from the suprarenal capsules. This centre does not seem to extend much below the third thoracic segment in the cat. This portion of the cord corresponds with the beginning of the sympathetic outflow from the central nervous system.

(71) The Vitamine Hypothesis and Deficiency Diseases.

E. V. McCollum and W. Pitz have arrived at the conclusion that the essential factors in a complete diet are protein of suitable quantity and quality, an abundance of available energy in the form of protein, carbohydrate and fat, a suitable inorganic content, a sufficient amount of the fat-soluble food hormone, A, and an adequate supply of the water-soluble food accessory, B, as a result of an extensive study of experimental scurvy in rats and guinea-pigs and of the disease, as manifested in the human subject (*Journ. Biol Chemistry*, July, 1917). Funk has postulated the existence of a number of chemical substances necessary in a diet, and supposes that the absence of a single one of these bodies will cause altered metabolism, giving rise in one case to polyneuritis, in another to scurvy, in another to pellagra and in another to rickets. He assumes that other unidentified substances are needed to stimulate growth. A series of rats have been fed on eight different rations made up of rolled oats, purified casein, butter fat and inorganic salts, from which it has become apparent that a ration must contain these four ingredients to be successful in inducing growth over a long period. No evidence of scurvy was observed in any of the rats, although the animals did not grow. The experiments have shown that, for the rat, the only deficiencies in the oat kernel exist in the protein, inorganic and fat-soluble factors, and that all the unidentified substances of the water soluble class are present in the oat kernel. In a second series, guinea-pigs have been fed on two diets which have been shown to be entirely adequate for the rat throughout the growing period. One ration consisted of wheat embryo extracted with ether, salt mixture, dextrin, butter-fat and casein, and the other of ground maize, alfalfa flour and heated peas. The guinea-pigs failed to grow or long remain alive on either of these diets. Further, guinea-pigs die early with scurvy on a ration of rolled oats and fresh whole milk. Autopsy, however, shows that these animals do not eat for a day or two before death, and that the caecum becomes greatly distended with putrefying fæces. The authors are of opinion that guinea-pigs can only thrive on a diet leading to the formation of bulky fæces. Diets containing succulent vegetable substances, such as green grass, cabbage and carrots, along with grains, serve to keep them in good health. Diets containing oats alone lead to the formation of pasty fæces, which cause obstruction in the caecum. The authors have fed guinea-pigs with rolled oats and milk, citric acid, sodium benzoate, phenolphthalein and orange juice without observing any amelioration in the scorbutic condition. If, however, *liquid petrolatum* is given to lubricate the intestines, the animals become cured of scurvy or do not develope the disease. The authors conclude that unfavourable proportions among the well-known constituents of the diet, as well as of the two recently recognized food accessories, together with unsatisfactory physical factors, and injury wrought through the agency of micro-organisms inhabiting the alimentary canal, will account for all the observed types of disease referable to errors in the diet.

(72) Absorption of Protein and Sugar.

D. M. Hendrix and J. E. Sweet have estimated the amounts of amino-nitrogen and of glucose in the lymph of the thoracic duct and in the blood before and after the injection of nutrient solutions into the small intestines (*Journ. Biol. Chemistry*, December, 1917). The experiments were conducted upon dogs starved about 18 hours. The dogs were anæsthetized with ether without any preliminary injection of morphine. The lymph was occasionally collected by the usual thoracic fistula, but more usually was obtained through the left external jugular vein, which was tied off in the neighbourhood of the entrance of the subclavian vein. Any veins joining the ligated portion were divided. Perfectly bloodless lymph flowed from the cannula in the vein after a few minutes. A less concentration of amino-nitrogen was found in thoracic lymph than in the blood of the fasting dog. After the injection of milk, "peptone" and solution of amino-acids into the small intestines, the amino-nitrogen increases in the blood and in the lymph until the amount in the lymph exceeds that in the blood. The injection of solutions of glucose into the intestine increases the amount of glucose in the lymph, the amount of glucose in the lymph rising to the same concentrated as in the blood of the mesenteric veins.

(73) Carbon Dioxide in Venous Blood.

Yandell Henderson and A. L. Prince have attempted to estimate the tension of carbonic acid gas in the venous blood and the speed of the circulation in the human subject by determinations of the percentage of carbon dioxide in the alveolar air (*Journ. Biol. Chemistry*, December, 1917). They consider that the method of Haldane and Priestley supplies data of the "arterial pulmonary air" and that analysis of samples of the air expired after holding the breath, yields figures for "venous pulmonary air." The sample of expired air for the determination of the tension of carbonic acid gas in the venous blood is obtained in the following manner. The subject makes the deepest possible expiration into an empty rubber bag. The bag is closed and an analysis is made of its contents. After breathing for several minutes in a normal way, the subject empties the lungs as much as possible and quickly inhales the entire content of the bag. After holding this air in the lungs from five to fifteen seconds, the subject exhales as deeply as possible into the bag. Another analysis is made, when a higher percentage of carbon dioxide will be found in the air in the bag. The procedure is repeated, with intervals to allow for a return of normal conditions of respiration and circulation, until the percentage of carbon dioxide in the bag is found constant in successive analyses. This method is based upon the results of a series of separate experiments in which the air was held in the lungs for different periods of time at each inspiration from the bag. It was found that the amount of carbon dioxide at first increased, as the breath was held for a longer period, that, later, the percentage of carbon dioxide remained constant over several seconds during which the breath was held for increasing intervals, and that, finally, the concentration of carbon dioxide was again increased. The second rise in the concentration of carbon dioxide is attributed to the return of venous blood to the lungs, after having completed the circulation of the body.

(74) Bacterial Cleavage of Protein.

Takaoki Sasaki has studied the products formed from lævo-tyrosine by the action of *Proteus vulgaris* and *Bacillus coli communis*, in order to attain information as to the variation in the bacterial decomposition of products according to changed conditions, such as may occur in chronic poisoning by the toxins of bacteria or in the so-called alimentary intoxication of children (*Journ. Biol. Chemistry*, December, 1917). He added to the culture fluid a phosphatic mixture, to avoid the accumulation of hydrogen ions, and, in a parallel test, lactose, to assist in raising the concentration of the hydrogen ion. Small quantities of newly precipitated uranyl phosphate were added to the media as an activator. In the presence of lactose para-hydroxyphenyl-ethylamine was obtained, but in the presence of the mixture of phosphates dextro-para-hydrophenyl-lactic acid was isolated in the culture media after the growth of either organism. Different products thus appear from the activity of the same bacterium under altered conditions of the culture medium.

British Medical Association News.

MEDICO-POLITICAL.

Meeting of the Federal Committee.

A meeting of the Federal Committee of the British Medical Association in Australia was held at the Medical Society Hall, East Melbourne, on February 6, 1918, Mr. G. A. Syme, the Vice-Chairman, in the chair.

Dr. Basil Kilvington, one of the Vice-Presidents of the Victorian Branch, welcomed the members of the Committee to Melbourne and assured them of the desire of his Council to facilitate their work in any way that lay in their power.

Mr. G. A. Syme, speaking on behalf of the Committee, thanked Dr. Kilvington for the reception that the Victorian Branch Council had extended to the Committee.

The following members were present: Mr. G. A. Syme, Vice-Chairman, and General R. H. J. Fetherston, representing the Victorian Branch; Dr. F. P. Sandes and Dr. R. H. Todd (as substitute for Dr. G. H. Abbott), representing the New South Wales Branch; Dr. W. M. Robertson and Dr. J. Lockhart Gibson, representing the Queensland Branch; and Dr. F. S. Hone and Dr. H. H. E. Russell (as substitute for Dr. W. T. Hayward) representing the South Australian Branch.

It was announced that Dr. J. Lockhart Gibson had been appointed by Dr. W. Trethowan, one of the representatives of the Western Australian Branch, to be his proxy for the meeting. Apologies were received from Dr. Gregory Sprott and Dr. C. L. Park, the representatives of the Tasmanian Branch, who had unfortunately been delayed on their journey to Melbourne owing to an accident to the steamship Loongana.

Dr. W. T. Hayward was unanimously re-elected Chairman of the Committee and Mr. G. A. Syme, Vice-Chairman.

On the motion of Dr. Hone and Dr. Robertson, it was resolved:—

> That Dr. Sandes be asked to act as Secretary for the ensuing year.

And—

> That the Committee desire to express their sympathy with Dr. Abbott on his prolonged illness, and regret his absence from the metings of the Committee. They desire to place on record their appreciation of his services in the past and they hope that he will soon be able to resume his position on the Committee.

Dr. F. P. Sandes was appointed Honorary Treasurer. On the motion of Dr. Todd, seconded by Dr. Robertson, Dr. W. H. Crago was appointed Honorary Auditor.

A letter from Dr. W. T. Hayward referring to the message of congratulation which the Committee had addressed to General Sir Alfred Keogh, was read. Dr. Hayward had called the attention of the Committee to the fact that Sir Alfred Keogh had valued the congratulations of the Committee very highly. The following letter from Sir Alfred was read:—

War Office,
Adastral House,
Victoria Embankment, E.C. 4,
September, 1917.

Dear Colonel Hayward—

If, unfortunately for my sake, I am deprived of receiving from you the letter which you mention, I am nevertheless made aware by your enclosure of the most kind and most flattering intentions of the Federal Committee.

I hasten to say to you and to express the hope that you will convey to Dr. Abbott, how fully conscious I am of the great honour his Committee has done in thinking even of addressing to me the congratulations of the profession in Australia. I am deeply sensible of their kindness and good feeling towards myself, and I would beg you in conveying my warm thanks and an expression of my gratitude, to find words sufficiently appropriate for so great a compliment.

I earnestly hope, too, that one day I may receive a copy of the letter which has been lost, for I would greatly prize it, and I know my family would keep it as a cherished possession.

If you are in town I would much like to express to you personally how much I feel the kindness of my Australian brothers.

Believe me,
Yours sincerely,
ALFRED KEOGH.

The correspondence was received, and it was resolved that the letter of Sir Alfred Keogh be published in *The The Medical Journal of Australia*, together with an explanatory memorandum.

An official communication addressed to the Committee from the Medical Secretary, British Medical Association, dated October 29, 1917, was read, inviting attention to new by-laws of the Association, providing for the appointment by overseas Branch-Divisions of Deputy Representatives to take the place of the Representatives-in-Chief in the Representative Body, in the event of the latter being unable to attend the meetings. The letter also dealt with the appointment of Representatives and the reports of the Branches.

A letter from the Council of the Victorian Branch was read, dealing with the proposal to institute a fund for the widows and dependents of medical officers killed or disabled while on active service. The Council requested that the matter be taken as one of urgency.

The Chairman, however, ruled, under Rule 4, subsection 4, that the motion could not be moved. The rule reads as follows:—

4. No motion shall be moved at any meeting of the Committee except in regard to matters appearing in the paper setting forth the business to be transacted at the meeting; provided that with the consent of all the members present a motion may be moved in regard to a matter of urgency which has arisen too late to allow 28 days' notice as aforesaid being received thereof by the Secretary.

It was resolved that the congratulations of the Federal Committee be conveyed to Colonel W. T. Hayward on the occasion of his having been created an Officer of the Order of the British Empire. The resolution was passed subject to confirmation of the information that the recipient of this decoration was Dr. W. T. Hayward and not some other Colonel Hayward.

Uniform Medical Registration in Australia.

It was reported that at the last meeting of the Federal Committee the question of the consideration of the replies from the Branches in reference to the report of the sub-Committee on uniform medical registration in Australia, consisting of Dr. W. T. Hayward and Dr. F. S. Hone, had been deferred. The sub-committee's report and an opinion on the subject received from the Council of the New South Wales Branch, were submitted.

It was moved by Dr. Hone and seconded by Dr. Robertson:—

> That the Secretary be requested again to forward copies of the Report of the Sub-Committee on Uniform Medical Registration in Australia to the different Branches, together with other communications received on the subject up to the present time from the Branches, with a request for early consideration of the matter by the Branches and for a report to the Secretary within the next six months.

Dr. Robertson explained that the question had been discussed by the Queensland Branch. It was thought that the Federal Government had no authority to take over the task of regulating medical registration at present, and consequently that it would be better to endeavour to influence the State Governments to amend the existing Act in the direction indicated in the report. He understood that there was some danger that a new Bill might be introduced with provisions which would be unacceptable to the medical profession.

Dr. Lockhart Gibson related how the Queensland Branch had with considerable difficulty opposed the introduction of a measure some year ago. This measure, had it become law, would have enabled herbalists, Christian Scientists and other charlatans to obtain registration. He recognized a considerable danger in urging the Government to introduce a new measure now.

In the course of further discussion the necessity of the Medical Boards in all the States being endowed with power to remove names of practitioners found guilty of infamous conduct in a professional respect, was emphasized.

The motion was carried.

Dr. R. H. Todd suggested that it might be advisable for the Committee to approach the Commonwealth Government, for the purpose of ascertaining whether the Commonwealth Parliament had power to legislate in the matter. The Committee had been advised some time ago that it had not, and that, to acquire this power, it would be necessary that the several State Parliaments should surrender their sovereign rights in this respect. It was also felt by some that there was a risk that a Commonwealth measure might be less acceptable than some of the existing State Acts. The Acts of Victoria and Western Australia were, in most respects, satisfactory; and the 1915 Act of New South Wales had improved the position in that State. It provided for reciprocity and the alternative of a State examination; and prohibited the registration of German or Austrian qualifications.

Dr. Hone thought that the Branches should be asked to determine, when they were considering the question of uniform medical registration, whether the Federal Government should be approached to ascertain whether they had any power to bring in an enactment of this description, and if not, what steps were necessary to be taken in order that they might obtain these powers.

Venereal Diseases.

The Secretary reported that the several Branches had been communicated with, in accordance with the instructions of the Committee at its last meeting, in regard to the question of venereal diseases from the public health point of view, and the correspondence was read.

(1) Dr. W. N. Robertson reported that the Queensland Government had been advised to amend the *Health Acts Amendment Act, 1917*, Section 11 (8), by the addition of the words "and/or to the proper health authority" after the words "officer of police," but that so far no action had been taken.

(2) The Victorian Government had been communicated with for the purpose of the introduction of a clause similar to Clause 11 (8) of the Queensland Act into the Victorian Act; and the Minister of Public Health had promised to give the matter his consideration. The same procedure had been carried out in regard to the Tasmanian and the Western Australian Acts, and it was understood that the Commissioner of Public Health in Western Australia had already drafted a clause which embodied the suggestion.

(3) The New South Wales Branch reported that the Minister for Health had invited representatives of the Council to confer with him on the public health proposals of the Government, and that it was ascertained that the policy of the Government at that time was to deal with venereal diseases under existing Departmental powers and without special legislation.

No reply had been received from the South Australian Branch and Dr. F. S. Hone explained that there was a reluctance on the part of some members to advocate this form of legislation, but it was thought that something might be done when experience of the Acts in the other States showed them to be effective.

(4) In regard to the question whether precautions for the prevention of venereal disease, which should be taken by those who had exposed themselves to the risk of infection, should be made more widely known, the correspondence showed that the New South Wales Branch Council alone favoured the suggestion.

(5) At its meeting in April, 1917, the Federal Committee had resolved that clinics for venereal diseases should be in connexion with, and under the direct control of the public general hospitals, and should not be institutions directly administered by a Government Department, and, further, that they should be under the control of an honorary medical staff. The Branches had been communicated with. The New South Wales Branch, the Victorian Branch and the South Australian Branch had agreed with these proposals. The Queensland Branch had determined that the clinics should be in connexion with public hospitals, but should not be directed by an honorary medical staff. The Western Australian and Tasmanian Branches had adopted a similar attitude.

On the motion of Dr. R. H. Todd, seconded by Dr. J. Lockhart Gibson, the second part of the resolution was amended to read—

> and (*b*) they should be directed, when practicable, by an honorary medical staff.

War Emergency Organization.

(*a*) The Secretary reported that several Branches, as requested by the Committee at its last meeting, had taken a plebiscite of their members on the following question:—

> Are you in favour of the Federal Committee of the British Medical Association in Australia requesting the Commonwealth Government to pass legislation to bring about compulsory enlistment of the medical profession in Australia for service in the Australian Imperial Forces, including service overseas?

The returns showed that 1,361 members had voted, of whom 1,011 had voted in the affirmative and 350 in the negative. The majority in favour was 74.28%; all the Branches were in favour. The Committee had decided "that, in the event of the voting being in favour by a three-quarters majority of those voting and by a majority of the Branches, the Chairman be authorized to approach the Federal Government with a view to the compulsory enlistment of the medical profession for service in the Australian Imperial Force." The first condition therefore not having been satisfied, the Chairman had not taken any action.

Mr. G. A. Syme explained his position in this connexion. He had felt extremely anxious, and had difficulty in determining what should be done. He had come to the conclusion that, since the Committee had authorized him to take certain steps in the event of a three-quarters majority having been attained, he would not be justified had he taken those steps even had the voting been closer to the three-quarters than 74.28%. He felt himself bound by the words of the resolution, although he had been much inclined to accept the determination of the majority of the members.

The Secretary reported that letters had been received from the New South Wales Branch, from the Queensland Branch, from the Western Australian Branch, and from the Tasmanian Branch, conveying resolutions of the four Branch Councils to the effect that their representatives should urge the Chairman of the Committee to approach the Commonwealth Government with a view to the introduction of a Bill for the compulsory enlistment of the medical profession for service with the Australian Imperial Force, in the same way as he had been authorized by the Committee to do in the event of the voting satisfying the requirements of the previous resolution.

In regard to this correspondence, Mr. G. A. Syme pointed out that it would have been useless to have taken any action during the period when the second Commonwealth Referendum was being taken. There was uncertainty as to what the results of the Referendum on the profession would be. Moreover, he had consulted with General Fetherston, and had been assured that there was no urgency.

Dr. F. S. Hone contended that the Chairman could not have acted otherwise than by interpreting the resolution to the letter. He maintained that the Committee should endorse the Chairman's action.

Dr. R. H. Todd and Dr. F. P. Sandes agreed that the Chairman had acted rightly.

Dr. F. P. Sandes expressed his disappointment that the majority of the members voting in favour of conscription was just short of three-quarters. He held that there should be an equality of sacrifice, and he hoped that the Chairman would find some method of admitting the proposal of the Victorian Branch concerning a fund for assisting the disabled members of the profession, their dependents or their widows. Those medical practitioners who for various reasons were unable to go to the front should do something for their colleagues, and should make some adequate sacrifice.

The Committee unanimously approved of the Chairman's action.

Dr. F. P. Sandes moved:—

> That the Chairman be requested to approach the Commonwealth Government with a view to the introduction of a Bill for the compulsory enlistment of the medical profession for service in the Australian Imperial Force in the same way as he was authorized to do in the event of the voting in the plebiscite of July 16, 1917, being in favour by a three-fourths majority of those voting, and by a majority of the Branches.

Dr. W. N. Robertson seconded Dr. Sandes's motion. He pointed out that if it were carried, the difficulties which the Chairman found himself in would be removed.

Dr. J. Lockhart Gibson held that, as the members had voted on the understanding that action would not be taken unless a three-quarters the majority were obtained,the Committee would not be justified in taking action.

Dr. R. H. Todd explained that the Committee had fixed its own conditions, and that it could modify these conditions should they have reason to do so. They should not be influenced by the idea that they were unlikely to succeed. Few of them were deterred from a set purpose by the probability that they would be unable to obtain their aim. He considered it was the duty of the Committee to convey the facts to the Federal Government.

Mr. G. A. Syme ruled that it was quite competent for the Committee to determine on any action it pleased.

Dr. F. S. Hone had difficulty in determining which course should be pursued. He did not believe that it would do any good to ask the Government to conscript the doctors, in view of the result of the general Referendum.

General R. H. J. Fetherston recognized that there were great difficulties in removing the inequality of sacrifice. Nothing would please him better than that the profession could be compelled to join the service. On the other hand, he urged that every doctor had rights as a citizen, and he was inclined to regard the proposal as going behind the vote.

Dr. F. P. Sandes drew attention to the fact that 85% of the members of the South Australian Branch, who had voted, were in favour of the proposition, and that 65% of those in Victoria had voted "Yes." He claimed that 1,361 votes was a very large number for the profession to record. He held that the Minister for Defence and the community in general should be told that there was one profession that was willing to do its duty.

Mr. G. A. Syme expressed his appreciation of the resolution which the meeting had passed concerning his action. He saw no objection to the proposal which Dr. Sandes had made.

Dr. J. Lockhart Gibson suggested an amendment to the effect:—

> That the facts, including the proposal of the four Branches, as set out in Dr. Sandes's motion, be placed by the Chairman before the Prime Minister.

General R. H. J. Fetherston seconded the amendment, which was carried. The amendment then became a substantive motion, and was carried unanimously.

The meeting then adjourned.

The Council of the Victorian Branch held a special meeting on February 8, 1918, to consider the proposals put forward by the Premier, Mr. Bowser, in regard to the lodge question.

On February 5, 1918, a large section of the Council of the Branch (under the chairmanship of Dr. Basil Kilvington) conferred with the Premier and the Attorney-General, Mr. Agar Wynne. Various points were discussed. It was made quite clear that the Branch was determined to adhere to the terms of the new standard form of agreement. The Premier sought to persuade the members of the deputation to be conciliatory, and, when he found that concessions would not be granted, he made the suggestion that the matter should be submitted to arbitration. Various devices were proposed to insure that the friendly society lodges would be kept to the findings of the Judge. The delegates expressed their gratitude to the Premier for his good services in the endeavour to find a solution which would again bring harmony between the lodge surgeons and the lodges. They pointed out that the conference was held at the Premier's request, and was not of the Council's seeking, and that they did not desire arbitration. They were prepared, however, to place all the facts before the Council, and to discuss the situation fully, in order that the proposal might not be arbitrarily dismissed.

The Council considered the position very carefully on February 8, 1918, and drafted a letter to be addressed to the Premier, the text of which is appended:—

> I am instructed by the Council of the Victorian Branch of the British Medical Association to state that it regrets that it is unable to accept the suggestion made by you on the 5th inst. to submit to arbitration the matters in dispute with the friendly societies.
>
> The Council is deeply sensible of the efforts you have made to bring about a settlement in this matter, and feels that it is due to you that it should state the grounds upon which it has formed the opinion that this dispute is one to which arbitration is not applicable.
>
> The lodge surgeon, who, taken generally, is the general practitioner in the State, gives to those of the public who are not members of a friendly society, and who can afford private fees, a service, whether for consultation or visit, at the fee of half a guinea; in some industrial suburbs this fee is 7s. 6d.
>
> To members of friendly societies the same service is rendered at a figure which is estimated approximately at 1s. per consultation and 1s. per visit.
>
> This is a great concession, and has for many years been made by members of our Association to friendly societies, because it was recognized that wage-earners and many others with small incomes were not in a position to afford the usual professional fee.
>
> The Council contends that it is the inalienable right of the medical profession to say how far this concession shall extend, and to whom it shall apply; and that the whole question of the contract upon which this concession is based and controlled is a matter for the decision of the medical profession which makes the concession, and is not one that it can consent to submit to arbitration.
>
> The agreement presented to the lodges by our members has been in existence in New South Wales for the past four years, and there have been no complaints from the friendly societies in that State.
>
> If the Victorian friendly societies are not prepared to accept similar terms, it will devolve upon the Council to establish a direct contract practice with patients, which will eliminate many of the obvious objections to the friendly society control of medical practice.

On February 13, 1918, Mr. J. Lemmon, M.L.A., moved the adjournment of the Legislative Assembly for the purpose of directing attention to the serious situation that had arisen through the dispute between the medical profession and the friendly societies. He prefaced his remarks by a gross misstatement concerning an alleged undertaking by the medical men and the friendly societies that the pre-war conditions should not be altered during the war. He asked the House to introduce a Bill to set up a tribunal composed of representatives of the friendly societies, representatives of the "medical officers," and an impartial chairman, with powers to frame a model lodge agreement which should be enforced in all cases in which no contract exists at present. He further proposed that all the lapsed contracts should be deemed to have been renewed on the same terms for a period of three months, and that "medical officers" who had resigned their lodge appointments, be bound in fresh contracts under the terms devised by the tribunal. In the course of the debate some of the speakers attempted to show that the State had created the medical profession, had done much for its members, and had the power to deregister them.

The Premier, Mr. Bowser, refused at that stage to intervene, and stated that the Ministry had absolutely no coercive powers. He suggested that another attempt would be made to bring the parties together, and, if no settlement were then arrived at, the Ministry would consider the question of submitting to the House for its decision the question of whether arbitration should be enforced for the first time in Victoria for the settlement of a dispute of that character.

On February 15, 1918, the Council of the Victorian Branch of the British Medical Association made a public announcement that they are instituting a scheme of direct contract practice with patients.

The Organization Committee of the Council of the Victorian Branch of the British Medical Association will hold its meetings on Mondays, Wednesdays and Fridays at 8.30 p.m., at the Medical Society Hall, East Melbourne. The Committee will deal with any urgent business that may arise at any time. Hitherto the Committee has conducted business every evening.

THE PUBLIC HEALTH OF NEW SOUTH WALES.

(*Continued from page* 135.)

Public Health Acts.

Dr. Paton calls attention to the passage of the *Public Health Amendment Act, 1915,* and emphasizes the importance of this measure. It confers upon the Board of Health powers for improving and safeguarding the public health, which it had previously not possessed. We have already dealt with this Act in *The Medical Journal of Australia,* and consequently there is no necessity to recapitulate its provisions in this place. As far as the administration of the Act during the year 1915 is concerned, it appears that a circular letter was sent to all licensed publicans concerning the sanitary construction and maintenance of licensed premises in a clean and wholesome state, and calling upon them to have existing defects rectified. Section 15 of the Act provides for the declaration of a district as an infected area, when certain infective diseases appear in this district and render the adoption of this measure advisable. In an infected area the Board may segregate the inhabitants, may prevent persons from entering or leaving the area, and may enforce isolation or quarantine in the case of persons who have been exposed to infection. This Section was enforced for the first time in connexion with the outbreak of small-pox at Kurri Kurri, where the local hospital site was declared an infected area. The improved methods of dealing with the closure of buildings unfit for habitation provided for in Section 16 were utilized freely, both in the country and in the metropolis. It is, of course, impossible for the amended Act to have effected any marked improvement in the public health so soon after its introduction.

The Director-General calls attention to the fact that progress in other aspects of the general health policy of the Government had been severely handicapped, as a result of the depletion of the staff, and as a result of the necessity for economy in public expenditure.

The Senior Medical Officer of Health, Dr. W. G. Armstrong, was appointed Command Sanitary Officer. His duties included regular visits of inspection to the various military camps. The military camps in the Newcastle district were inspected by Dr. J. Booth-Clarkson.

In connexion with the military work, the Department had prepared at its Microbiological Laboratory anti-typhoid vaccine for prophylactic use in soldiers leaving Australia. During the years 1914 and 1915, 206,065 c.cm. of a suspension of *bacillus typhosus* were prepared for this purpose. This corresponded to 68,688 doses. Of the total quantity, 58% was employed in New South Wales, 24.6% in Queensland, 3.8% in Victoria, and smaller quantities in other States of the Commonwealth. In addition, 12% was used in Egypt. Dr. Paton quotes from a report by General Williams to demonstrate the efficacy of this prophylactic treatment.

In July, 1915, the Department established a small microbiological laboratory at the Liverpool Camp, an account of an outbreak of epidemic cerebro-spinal meningitis. Other bacteriological investigations were carried out for the military at the Microbiological Laboratory.

On August 3, 1915, a Night Recruiting Depôt was established in connexion with the Department. Up to the end of December, 6,814 persons were examined at the Depôt; 5,560 were accepted for military service, and 1,254 were rejected. The work was performed voluntarily by the members of the medical staff.

Before military hospitals were established, many recruits were treated medically at the various State Hospitals. The total number of military patients admitted was 385. Some 40 patients were also sent to the Denistone Convalescent Home to recuperate after severe illness or operation.

The Department further undertook the duty of inspecting the military stores and analysing samples of foodstuffs, of performing some laundry work, and of disinfecting a large number of articles.

On December 31, 1917, eight medical officers, 16 nurses and 32 other officers of the Department were absent on military duty.

Food Control.

The Department of Public Health employs eight persons for the purpose of administering the *Pure Food Act, 1908.* The Director-General calls attention to the necessity for a considerable extension of the staff to ensure a more efficient control over the preparation, distribution and storage of food supplies.

Milk Supply.

The duties of the food inspectors include the supervision of premises from which milk is sold, and of the milk carts, and of receptacles, and the control of the milk itself. In many instances vendors have been warned against the dangerous habit of exposing milk intended for sale to contamination by flies and dust. In some cases the vendor has been prosecuted for selling contaminated milk. During the twelve months, 10,088 samples of milk have been taken for analysis. The local authorities took 5,750 of these samples and the Department took the remainder. The result of the analyses was that 502 of the samples were condemned as having been adulterated. The Government Analyst does not state the grounds on which he arrived at the conclusion that these samples had been adulterated. On the other hand, the Chief Inspector points out that the condemned samples were "below the standard." In view of the careful analyses published by Dr. Wardlaw, it would appear that many healthy cows yield milk which is below the standard set up by the various State Governments in regard to one or other constituent. It would therefore be more reassuring if the Government Analyst were to publish his records and differentiate between those cases in which it could be proved that water had been added to the cow's milk and those in which the milk as derived from the cow was below the artificial standard. According to the report, approximately 5% of the samples taken were adulterated. Warnings were issued in 235 cases, and prosecutions were instituted in 267. The average fine imposed was less than £5. Surely this fine is too low to be deterrent.

The Chief Veterinary Inspector points out that, since the *Dairies Supervision Act* became law in 1886, its provisions have been applied to district after district, until in 1915 they covered the whole of the Eastern and Central Divisions and the more important of the inland dairying centres. He continues to urge for extended powers, in order that the authority may compel owners of dairies to undertake necessary structural improvements, and to observe sanitary conditions strictly. The staff consists in a Chief Veterinary Inspector, an Assistant Veterinary Inspector and 14 Dairy Inspectors. In 1915 the total number of registered dairying premises was estimated at 19,400, and of dairy cattle at 565,000. During the year, 12,555 premises were inspected, and 412,125 heads of cattle. Of these animals, 1,066 were condemned on account of disease. In 760 cases the disease was tuberculosis, in 195 it was actinomycosis and in 99 cancer. Of the tubercular beasts, 53 reacted to the tuberculin tests, out of 126 subjected to them.

Meat.

The Inspector records that a considerable improvement had been attained in the construction and proper upkeep of butchers' shops and in the protection of meat offered for sale. As a result of 704 inspections, 18 prosecutions were undertaken, on the ground that the vendors failed to keep their shops clean. Many traders were notified that certain alterations were required, and when the Inspector revisited the premises the improvements had been effected. It is stated that a special inspection was made of all meat-cutting carts trading in the metropolis. These carts were found to be satisfactory and clean. The Inspector holds that, provided the carts are properly kept, they serve a useful purpose.

The Chief Veterinary Inspector gives information concerning the control kept over slaughter-yards and the meat trade. At the Flemington Sale Yard, of 204,221 cattle yarded, 353 were condemned prior to sale, while 1,396 were marked. As a result of the post-mortem examination of the cattle marked, 223 carcases were totally condemned, while 681 were partially condemned. The prevalence of actinomycosis and tuberculosis was marked.

A special report is published, dealing with the meat export branch, and with the inspection of meat in the markets, as well as of animals at the Sydney Abattoirs and at 52 country and suburban private slaughter-houses. It appears that at the Sydney Abattoirs 1.42% of cattle and 0.88% of pigs were condemned on account of tuberculosis, while 2.39% of cattle and 2.78% of pigs were partially condemned for the same

reason. In the private slaughter-houses the prevalence of tuberculosis among the cattle was lower, and among pigs was higher. Over 5% of the pigs at eight country and suburban bacon factories were condemned wholly or partly because of tuberculosis. The amount of meat of various kinds condemned on re-inspection because it had become sour, putrid or unwholesome, was considerable, although it is stated that a marked improvement in the care and handling of meat was noticed. The reason for the improvement given was that the price of meat had become very high.

Restaurants, Hotels, etc.

The Chief Inspector and his staff visited 591 premises used as restaurants and refreshments rooms. In seven cases it was found necessary to take steps to bring about an improvement in the cleanliness of these premises. Nearly all of the bakeries and pastrycook's premises were in a satisfactory condition, and the food offered for sale of good quality. On the other hand, it was found necessary to proceed against careless carters for failing to protect bread from dust. The Chief Inspector states that the action taken apparently had a salutary effect in preventing a recurrence of the offence. As a result of his inspection of hotels and hotel kitchens, he advocates that a special officer should be employed to control the hygienic management of these places.

Legal proceedings were taken against four suppliers for selling adulterated food to the Commonwealth for use on transports. The defendants were convicted and were fined, in the aggregate, £52. The absurdity of fining large dealers small sums of money when a serious offence has been committed does not need emphasizing.

Quack Medicines and Appliances.

The Director-General states that special attention has been directed to advertised medical preparations and appliances. In some cases large businesses of a nefarious character had grown up, as a result of an extensive advertising of nostrums and appliances, where were often harmful, usually worthless, and always misleading and dangerous. Proceedings were taken against proprietors of patent medicines for which exaggerated claims were made, or the contents of which were falsely described. Two wholesale drug stores were each fined £10 and costs for selling a preparation called Vitadatio. The Ozonia Company was fined £20 and costs for selling Ozonia, a preparation of no medicinal value and of small monetary value. The Department seized 36,000 bottles and destroyed their contents.

An unqualified practitioner was prosecuted for using the description "Medical Specialist," and was fined £50, with the option of going to prison for four months.

Removal of Names of Medical Practitioners from the Register.

Reference is made to the action taken by the Department, which resulted in the removal of the names of two medical practitioners from the Medical Register, on the ground that they had been guilty of infamous conduct in a professional respect. These cases have been dealt with in *The Medical Journal of Australia* in some detail.

Sanitation.

The Chief Sanitary Inspector points out in a special report that, for the purposes of administering the *Public Health Act*, as amended in 1915, 65 qualified sanitary inspectors appointed by the local authorities were authorized by the Department to issue certificates in accordance with the provisions of the Act. The Sanitary Inspectors of the Department undertook the inspection of insanitary buildings in 125 instances. This action was taken when the local authority had no qualified inspector.

A systematic inspection of nine country towns was carried out, while second inspections were made of 30 towns, for the purpose of ascertaining if the recommendations of the Department had been complied with. "Eleven outbreaks of infectious disease were investigated by the staff." The Chief Inspector gives no amplification of this statement, and the Director-General reports it in the same words. It would be interesting to learn the method adopted by officers of the Department holding certificates of the Royal Sanitary Institute in the investigation of outbreaks of infectious disease.

A systematic inspection of all the hotels within the State was planned after the Department had obtained efficient powers to deal with any existing unhygienic conditions. A pamphlet dealing with the sanitation of hotels was issued by the Department to the licensees of all hotels, and in this way the requirements of the Department were brought to the notice of the licensees. The Chief Inspector reports that 59 inspections were made, as a result of complaints of nuisance from defective drainage, disposal of night-soil, garbage and liquid wastes, dirty stables, offensive trades, pollution of streams and garbage destructors. Septic tank installations were also inspected, as were the sanitary conveniences in 12 Government buildings, at 14 wharves and 37 railway stations and on 37 steamers. He does not take the public into his confidence by disclosing what was found at these various inspections.

A considerable amount of disinfection of premises was carried out in connexion with the small-pox epidemic. It is stated that 61 visits were made by sanitary inspectors, for the purpose of tracing contacts. The staff of the Chief Sanitary Inspector's Department included in their work for the year inspection of building lands, of railway camps, wool-scouring establishments, of water-courses and water supplies, of sanitary services, of proposed sites for night-soil depôts and of existing depôts, of garbage tips and of garbage destructors. In some of these instances the inspections were undertaken in response to complaints. The staff collaborated with the City Council rat catchers, a rat catcher of the Harbour Trust and others in freeing the wharves of rats. The total yield was 9,515 rats; the Department was responsible for 2,293 of these.

Private Hospitals.

The *Private Hospitals Act, 1908*, is administered by the Department, and a special report on its operations is issued by Dr. A. T. Chapple, Assistant Medical Officer. During the year 1915, 104 applications for new licences were received, of which 40 were in respect of hospitals situated in Sydney and its suburbs. Owing to the pressure of work of the depleted medical staff, recourse was had on many occasions to the expedient of calling upon the police to inspect hospitals and to furnish a report on a form supplied by the Department. Of the 104 applications, 15 were refused, chiefly on account of the failure of the resident managers to submit the necessary certificates of training. In a few instances the refusal was based because it was ascertained that the applicants were not of good character. In 12 instances the applications were withdrawn. Licences were issued in 76 instances. The total number of private hospitals licensed for the purpose at the beginning of the year was 519, and at the end of the year 537. In five cases legal proceedings were taken on account of alleged breaches of the Act. The case was dismissed in one instance, and in the remaining four a fine was imposed. Only one licence was recalled during the course of the year.

Of the 537 licensed private hospitals, 346 were for lying-in cases only, including 106 in Sydney and 240 in the country. There were 172 hospitals for medical, surgical and lying-in cases, including 49 in Sydney and 123 in the country, and 19 hospitals for medical and surgical treatment, of which 7 were in Sydney and 12 in the country. Only 70 of the hospitals contained over 10 beds. The licensees were medical practitioners in 40 cases, certificated nurses in 303, and uncertified persons in 194. In 27 cases the resident managers were medical practitioners.

In accordance with Section 11 of the Act, 31 cases of diphtheria, 35 of morbilli and 4 of puerperal septicæmia were notified as having occurred in private hospitals.

Early Notification of Births Act.

The *Early Notification of Births Act, 1915*, was placed on the Statute Book on February 15, 1915. Under the provisions of this Act, all births occurring within specified districts have to be notified within 36 hours. The Act was brought into operation in the congested areas of the Metropolitan and Hunter River District. As a result of the notification, a trained nurse from the Baby Clinics at Alexandria, Balmain, Glebe, Mascot, Newtown, North Sydney, St. Peters, Waterloo and Newcastle visited the mothers and gave some necessary advice and attention. The Baby Clinics enumerated above were under the direct administration of the Minister of Public Health.

(To be continued.)

THE HEALTH OF ADELAIDE.

Dr. T. Borthwick, the Medical Officer of Health for Adelaide, has published his report on the public health of the city for the year ending September 30, 1917. The report is a concise document covering four and a half pages of printed matter, and to it are attached five short appendices.

These statistics included in the report are based on an estimate of 39,643. During the 12 months under review 1,066 births and 1,101 deaths were registered. From the latter figure 400 has to be deducted in respect of persons not usually resident in the city, who died in public institutions. The birth-rate was 26.88 per 1,000 of population and the death-rate 17.68. The infantile mortality works out at 108 per 1,000 births. Dr. Borthwick points out that the rates given are based on the data supplied by the Registrar-General, "but they do not afford a correct view of the position." In explanation, he points out that no deduction has been made for the death of 228 persons which occurred in private hospitals and maternity homes and the Children's Hospital. These persons had their domicile outside the area of the city. He has also ascertained that 51 persons whose usual residence was in the city died in institutions situated outside it. He therefore gives the corrected death-rate as 13.21, and the corrected infantile mortality-rate as 62. The birth-rate was lower than that recorded in the years 1911-12 and 1912-13. It was higher than that recorded in all other years since 1906-07. In regard to the death-rate, it appears that the lowest record since accurate data has been available on which the proper corrections could be made, was in the 12 months from October 1, 1908, to September 30, 1909. It was then 12.5. The next lowest was in the year under review, while the highest, *viz.*, 16.64, was recorded the preceding year. The infantile mortality reached its lowest point during the last ten years in the year under review. It exceeded 100 in 1907-08, and was 114 in 1915-16.

A table is set up, giving the number of deaths which were registered quarterly from a number of selected diseases. A second table is given for the purpose of comparing the number of deaths from each of these diseases during the past ten years.

The number of cases of enteric fever reported during the year was 22. The average for the previous ten years was 17.2. There were seven deaths, consequently the case mortality was 31.8%. The number of cases of diphtheria reported was 137, as compared with an average of 148.9. Of the 137 patients, 99 were isolated and treated in hospital. The total number of deaths from diphtheria was 40, but of these 28 were of persons not usually resident in the city. It thus appears that the case mortality was 8.7%. It is assumed that the total number of cases reported did not include any patients who were usually resident outside the city. The number of cases of scarlatina notified was 26, which is 6.4 less than the average for the past ten years. Only eight of the patients were isolated. One death occurred. There were 17 cases of erysipelas without any deaths. Only four cases of puerperal fever were reported to the health authority. Of these four patients, two died. During the past ten years 2,796 cases of measles have been reported in the city. In the year under review there were 205 cases. Of these, three were fatal, which yields a case mortality of 1.5%. It appears that an epidemic has been active for about two years or more, and that it came to an end during the course of the year. There were 105 cases of pertussis, which is a slightly higher figure than the average. The case mortality was 10.5%. In the year 1914-15 13 cases of cerebro-spinal meningitis were notified. In the following year the number increased to 28, and in the year under review it again diminished to nine. No less than seven of them were fatal. A diminution in the frequency of pulmonary tuberculosis is also noted. The number of cases reported was 43, as compared with an average of 60.5 for the past ten years. Dr. Borthwick points out that the figure for the year was the smallest on record since the disease was made notifiable in 1898. The number of deaths from this disease was 39. In the preceding year it was 70. Unfortunately, Dr. Borthwick does not give an account of the measures adopted to deal with these outbreaks of infective disease.

In regard to the sanitation of dwelling and other houses, he reports that systematic inspection has been continued, and has covered both dwelling houses, markets, premises where offensive trades are conducted, restaurants, boarding-houses, hotels, private hospitals and maternity homes, schools and public conveniences. In all cases where complaints have been laid, the nature of the complaint has been investigated by his Department. Notices were served for the removal of 3,825 insanitary conditions. No less than 50 houses were condemned as unfit for human habitation and orders were issued that 18 of them should be pulled down. A very large amount of work has been carried out by the inspectors. A by-law prohibiting spitting on footpaths was enforced, and the practice checked to a considerable extent. Measures for the abatement of smoke nuisance were also adopted.

In the appendice a tabular list of the insanitary conditions found is given, as are the number of examinations carried out at the Government Bacteriological Laboratory, a table of meteorological information, and tables setting forth the results of the chemical and bacteriological analysis of Adelaide water.

Public Health.

NEW SOUTH WALES.

The following notifications have been received by the Department of Public Health, New South Wales, for the week ending February 9, 1918:—

	Metropolitan Combined District. Cs.	Dths.	Hunter River Combined District. Cs.	Dths.	Rest of State. Cs.	Dths.	Total. Cs.	Dths.
Enteric Fever ..	4	2 ..	1	0 ..	18	2 ..	23	4
Scarlatina	13	0 .	1	0 ..	4	0 ..	18	0
Diphtheria	47	2 ..	6	0 ..	26	0 ..	79	2
C'bro-Sp'l Menin.	1	1 ..	2	1 ..	7	2 ..	10	4
*Pul. Tuberculosis	13	6 ..	1	0 ..	1	0 ..	15	6

* Notifiable only in the Metropolitan and Hunter River Districts, and, since October 2, 1916, in the Blue Mountain Shire and Katoomba Municipality.

It is announced in the *New South Wales Government Gazette* of February 15, 1918, that the undermentioned have been appointed as analysts, within the meaning of the *Pure Food Act, 1908*:—

Cooksey, Dr. Thomas, Government Analyst, Office of the Director-General of Public Health.
Doherty, William Michael, Second Government Analyst, Office of the Director-General of Public Health.
Walton, Sydney Gilbert, Third Government Analyst, Office of the Director-General of Public Health.
Taylor, Harold Burfield, Assistant Government Analyst, Office of the Director-General of Public Health.
Bagley, Ralph, Technical College, Broken Hill.
Byrn, George Alexander, Reiby Lane, Sydney.
Challinor, Richard W., Technical College, Sydney.
Dixon, Andrew James, Reiby Lane, Sydney.
Hamlet, William Mogford, Strathallen, Blaxland Ridge.
Harding, Henry George A., Daking House, Rawson Place, Sydney.
Molesworth, Francis Hilton, 82 Pitt Street, Sydney.
Orr, Alexander, 80 Hunter Street, Sydney.
Watt, Francis Langstone, 5 Hamilton Street, Sydney.

SOUTH AUSTRALIA.

The following notifications have been received by the Central Board of Health, Adelaide, during the week ending January 26, 1918:—

	Adelaide. Cs.	Dths.	Rest of State. Cs.	Dths.	Totals. Cs.	Dths.
Diphtheria	2	1 ..	14	0 ..	16	1
Pulmonary Tuberculosis	1	2 ..	15	6 ..	16	8
Enteric Fever	0	0 ..	12	0 ..	12	0
Pertussis	0	0 ..	8	0 ..	8	0
Scarlatina	0	0 ..	5	0 ..	5	0
Morbilli	0	0 ..	1	0 ..	1	0
C'bro-Spinal Meningitis	0	0 ..	1	0 ..	1	0
Puerperal Fever	1	1 ..	0	1 ..	1	2
Favus	0	0 ..	1	0 ..	1	0

NEW ZEALAND.

The following notifications have been received by the Chief Health Officer, Department of Public Health, Hospitals and Charitable Aid, New Zealand, for the four weeks ending January 7, 1918:—

Disease.	No. of Cases.
Scarlatina	103
Diphtheria	346
Enteric Fever	45
Tuberculosis	79
Cerebro-Spinal Meningitis	3
Puerperal Septicæmia	4
Erysipelas	5
Trachoma	3
Hydatids	3
Tetanus	1
Ophthalmia Neonatorum	2
Actinomycosis	1

Naval and Military.

CASUALTIES.

We regret to learn from the 383rd list of casualties that Captain Robert Wreyford Lawrence is ill.

Dr. Burton Bradley had accepted the position of Microbiologist and Director of the Laboratory of Microbiology and Pathology, Brisbane, in the Department of the Home Secretary. He is taking up his duties immediately and discontinuing his pathological practice in Sydney.

Special Correspondence.

(By our Special Correspondent.)

LONDON LETTER.

The Medical Treatment of Discharged Service Men.

A memorandum has been issued by the National Health Insurance Commission dealing with the Amending (1917) Act of the National Insurance Act, under which provision is made for the treatment of discharged service men who are certified to be suffering from any disease or bodily or mental disablement and who, by reason of their having elected not to pay contributions during the period of service or for any other reason, are not qualified under the 1911 Act to receive benefits out of the Navy and Army Insurance Fund.

The power of granting medical and sanatorium benefits to invalided sailors and soldiers not otherwise qualified to receive them, has been obtained by the Commissioners in accordance with the wishes of the Minister of Pensions. As a result, regulations have been made for extending benefits to all invalided, uninsured sailors and soldiers whose income from all sources does not exceed £160 a year.

Medical men have for a considerable time expressed dissatisfaction at payment being made for the treatment of invalided men on the terms applicable in the case of the ordinary insured population, and it has been submitted on their behalf that an excessive burden of liability to afford treatment not contemplated by the terms of their original bargain, has been cast on panel practitioners by the invaliding from service in a broken condition of men who, but for their service, would have made comparatively little or no claim upon the doctor's time and skill.

The Commissioners, with the consent of the Treasury, have agreed to meet the representations of the medical profession in a manner which will afford an automatic solution of the question. It is proposed that medical practitioners shall be paid per attendance for their actual services rendered to invalided men. A special fund will be constituted into which will be paid the sum of 9s. per head available in respect of each invalided man treated on the attendance basis, supplemented, so far as proves to be necessary, by an Exchequer grant.

New financial arrangements for defraying the cost of sanatorium benefits are to be made. Cases of uninsured men whose incomes exceed £160 will be dealt with centrally by the Pensions Ministry, with the assistance of the Insurance Commissioners, and the local Government Board will continue to deal with the case of uninsured commissioned officers.

Recent Chemical Discoveries in Germany.

The *Neue Zürcher Zeitung* recently published a review of German activities in technical matters in the field of war economies, in which it is stated that systematic investigations into the properties of pit coal have been carried on by the *Kaiser Wilhelm Institut für Kohlenforschung* and have yielded important results. The treatment of coal with liquid sulphurous acid at ordinary temperatures has produced viscous golden-yellow mineral oils, the amount produced being 5 kilogrammes per metric ton.

A process has also been elaborated by which, through heating naphthalene under pressure, in the presence of aluminium chloride, an oil is produced which can be used for illuminating purposes in the same manner as petroleum.

The utilization of lignite has been greatly extended. In the first place it is being used extensively as a fuel in the industrial establishments which have recently sprung up in the Central German lignite fields, especially in the neighbourhood of Bitterfeld and Halle a/S, where the German air-nitrate factories are situated. A process has been discovered by which nearly twice the usual amount of ozokerite can be obtained from lignite, and the gas is being more extensively used for heating and smelting purposes.

The Matriculation Examination for London University.

Under the new University of London scheme relating to the exemptions from the matriculation examination owing to war services, any candidate who sat for the examination in June, 1914, or subsequently, and who was rejected in not more than two subjects, will be allowed to enter for the subject or subjects in which he was rejected alone at any matriculation examination held during the war, or within one year after its conclusion, on payment of a fee of ten shillings, provided that he can produce evidence satisfactory to the University that he has undertaken approved service in connexion with the war within eight months of the time of taking the examination and before again attempting it, and has served to the satisfaction of his Commanding Officer or the authorities over him. This regulation will more particularly affect youths of 18 who have been called to the colours, and who, through the shortage of teachers and tutors and other similar causes, have just failed to reach matriculation standard in one or, perhaps, two subjects. They will now have placed to their credit the subjects in which they have actually passed, a reform which will be welcomed in educational circles generally, and one which the University of London will most probably be urged to retain after the war.

The Effect of the War on Education in Scotland.

The Privy Council Committee on Education in Scotland, in their Report for 1916-17, which was issued in July, say:—

"During the whole of the period under review war conditions have continued. While we can again express our cordial appreciation of the efforts made by managers and teachers to minimize the interference with education, we are bound also to repeat our regrets that the effects of the war upon our work should, in many directions, be so serious, and should, to a greater extent, call for relaxation of the ordinary requirements of the Department. Were this relaxation confined to affairs of administration, it would not greatly trouble us; but the information in our possession shows that in many districts regularity of attendance and efficiency of instruction are being affected, and the normal

period of school-life curtailed. No one who is interested in the welfare of children, can view, without deep concern, the fact that some thousands of pupils are leaving school at present with an educational equipment the defects of which will never be made good. Where this is inevitable owing to removal of staff or use of school for military purposes, nothing can be said; but where it is the result of indifference to securing attendance, or of ill-regulated exemption, a serious responsibility rests upon the school boards. The Department may well be excused for raising questions when they find adjoining school boards differing widely in the numbers of exempted children. This is true of various employments, but it is specially true of agriculture. In some cases we have even been requested to permit the exemption of children under 12 years of age, in defiance of the clear terms of the Education Act, 1901. Our view is that the labour of school children should be utilized only in the last resort, and, subject to that general principle, we have not felt at liberty to interfere with any school board which was carrying out its duty in a reasonable way. So far as the general welfare of children is concerned, every effort is being made to continue medical inspection and treatment as well as circumstances will permit. The chief inspectors make gratifying reference to the improved condition of the children following on the greater prosperity of many of the parents. On the other hand, we regret the apparent break in what we hoped was a steadily rising improvement in morals and manners on the part of the children."

Charing Cross Medical School.

On October 1, 1917, the annual distribution of prizes took place at Charing Cross Hospital on the occasion of the opening of the winter session of the Medical School.

Sir Herbert Waterhouse, Senior Surgeon to the Hospital, occupied the chair.

In presenting his annual report, the Dean of the School, Dr. Fenton, stated that the total number of staff and students on service was 256. Since last year the authorities had thrown open the school and associated hospital work to women medical students, on coditions similar to those that applied to men, and the experiment had been most successful. Women students had joined the school from all parts of the country, and he had had very gratifying expressions of opinion on the benefits that were likely to result from co-education of this kind. A further step had been taken that was inevitable: Qualified women had been admitted to resident house offices in the Hospital, again with a full measure of success.

One of the difficulties that women had experienced was that their preliminary school education had been lacking, but this was now being fully remedied.

The prizes were distributed by Dr. Addison, the Minister of Reconstruction, who was at one time on the staff of the Hospital.

In the course of a subsequent address, Dr. Addison spoke of the necessity that existed for them to make the best use of their medical training. Looking over some figure showing the shortage in the medical profession, he noticed that the annual wastage was between 900 and 1,000. It was estimated that the recruitment for 1918 was barely 900, and in 1919, when the depletion of their ranks through the war would be most felt, it would only be 519. That was to say, for some years to come the medical profession would not be recruited in sufficient measure to overcome the ordinary civil waste, to say nothing of the wastage which must necessarily arise, or had arisen, during the war. According to Sir George Newman's annual report, there were not fewer than a million children in attendance at the public elementary schools who were seriously handicapped in the race of life, owing to some preventible defect or disease. That was a problem for those entering on the study of medicine to think about, and it would need their best efforts to overcome that national handicap in the next generation. There were other problems to be dealt with, but there was one thing they could take for granted: The nation could not afford anything but the most efficient system of hospital supply, and if they could not get it by the pursuit of old methods, they must get it by the adoption of others.

Correspondence.

APPEARANCES OF LUNGS AFTER DEATH FROM ASPHYXIA AND THE REASONS THEREFOR.

Sir,—I was much interested in Dr. Litchfield's description of the different appearances of lungs in death due to asphyxia, and thought that a few observations on a recent case of eclampsia might have a bearing on the same subject.

The patient had been suffering with *ante partum* eclamptic fits for some hours before being seen, and was in a bad way. The fits were of usual severity and cyanotic type. Labour was induced and occurred about eight hours afterwards, the fits meanwhile being fairly controlled with morphia. About half an hour after the birth a spasmodic condition of expiratory dyspnœa occurred and lasted, with short intervals, for about half an hour. This was not the usual fit, though the musculature of the limbs was, during the greater part of this time, in a mild state of hypertonicity, but, during the latter half, gave way to flaccidity. During this time the pulse was feeble, and large quantities of blood-stained spume and mucus emerged from the nostrils and mouth, almost drowning the patient. The cause of this froth is suggested by Dr. Litchfield's remarks, and seems to be as follows:—Both the left and the right sides of the heart were fairly exhausted from previous fits. With the onset of expiratory dyspnœa, which was not continuous, but intermittent to a distressing degree, the arterial blood was more or less dammed back in the left side of the heart, and the blood pressure tended to fall as the left heart grew feebler under its load and the venous circulation tended to deplete the arterioles. The right side of the heart, not feeling the strain in this case as soon as the left side, continued the venous circulation until the lungs, becoming engorged, the block tended to occur here. Then moist œdema occurred in the quantity above referred to, and the capillaries, previously damaged by metabolic influences, burst under the strain. As the condition of dyspnœa wore away so did the discharge of bloody froth come to an end. The patient remained comatose for hours, and died with the onset once more of the fits.

Yours, etc.,

Esk, Queensland, February 12, 1918. W. BROOKES CLIPSHAM.

TO FURTHER RECRUITING.

Sir,—Dr. Carl Dyring entirely misses the point of the suggestion that medical reservists should wear armbands over civilian dress. We are now faced with the need of getting everybody to declare what they can do in the way of personal service. Hitherto, we have allowed speakers and writers to stigmatize anyone who does not at once declare for overseas service, as a "slacker," "rotter," or "cur." This may be patriotic, but it does not get recruits. Dr. Dyring would adopt the same tone with his colleagues. He would say in true militaristic style, "Haw! Have you been at the front?" "No?" "Haw! Well, go to the devil."

Dr. Dyring may be reminded that there are quite a number of medical men who are unable to go to the front, and who, nevertheless, have honestly placed their services at disposal in such capacity as they felt they could fill. The example of such men, daily brought home to everybody, must react on public opinion, even in the medical profession itself. Young and able-bodied men would hardly be long content to display a "reservist" badge and, if they were, the public would soon begin to wonder why.

Yours, etc.,

Melbourne, undated. "YOUR CORRESPONDENT."

The Honorary Secretary of the New South Wales Branch of the British Medical Association has received an official notification to the effect that His Excellency the Governor of New South Wales will hold a Levée at Government House, Sydney, on February 22, 1918, at noon. Gentlemen attending are requested to provide themselves with cards on which their names are legibly written.

Proceedings of the Australian Medical Boards.

VICTORIA.

The following have been registered under the provisions of Part I. of the *Medical Act, 1915*, as duly qualified medical practitioners:—

Ernest Harold Britten, Alfred Crescent, North Fitzroy, M.B. *et* Ch.B., Melb., 1917.

John Adam Campbell, Commercial Travellers' Club, Flinders Street, Melbourne, L.R.C.P. *et* S. Edin.; L.F.P.S., Glas., 1897.

Janet Pierson Cooper, Homœopathic Hospital, Melbourne, M.D., Boston, 1917.

Francis Temple Grey, 6 Place St. Sulphice, Paris, M.B., Sydney, 1914.

John McDonald, Minyip, M.B. *et* Ch.B., Melb., 1917.

John Charles Ross, Warragul, M.B. *et* Ch.B., Melb., 1917.

James Weir, 37 Waterfield Street, Coburg, M.C., Glas., 1896.

The undermentioned names of deceased practitioners have been removed from the Register:—

Charles Joseph Oliver.

James Dunlop Boyd.

NEW SOUTH WALES.

The following have been registered, under the provisions of the *Medical Act, 1912 and 1915*, as duly qualified medical practitioners:—

Alcorn, Robert Manderville, Lic., Lic. Mid., 1914, R. Coll. Phys., Irel.; Lic., Lic. Mid., 1914, R. Coll. Surg., Irel.

Matenson, Maurice, M.B., Bac. Surg., 1915, Univ. Melbourne.

Parer, John Ignatius, M.B., 1906, Bac. Surg., 1907, Univ. Melbourne; F.R.C.S., Edin., 1912.

Additional registration:—

Osborne, John King, F.R.C.S., Edin., 1906.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser," page xvii.

Royal Alexandra Hospital for Children, Camperdown, Chief Resident Medical Officer.

Royal Alexandra Hospital for Children, Camperdown, Temporary Honorary Relieving Ophthalmic Surgeon.

Medical Appointments.

IMPORTANT NOTICE.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C.

Branch.	APPOINTMENTS.
VICTORIA. (Hon. Sec., Medical Society Hall, East Melbourne.)	All Friendly Society Lodges, Institutes, Medical Dispensaries and other contract practice. Australian Prudential Association Proprietary, Limited. National Provident Association. Life Insurance Company of Australia, Limited. Mutual National Provident Club
QUEENSLAND. (Hon. Sec., B.M.A. Building, Adelaide Street, Brisbane.)	Medical Officers to the Selwyn Hospital, North Queensland. Brisbane United Friendly Society Institute Cloncurry Hospital.
SOUTH AUSTRALIA. (Hon. Sec., 3 North Terrace, Adelaide.)	The F.S. Medical Assoc., Incorp., Adelaide. Contract Practice, Appointments at Renmark.
WESTERN AUSTRALIA. (Hon. Sec., Health Department, Perth.)	All Contract Practice Appointments in Western Australia.
NEW SOUTH WALES. (Hon. Sec., 30-34 Elizabeth Street, Sydney.)	Australian Natives' Association. Balmain United F.S. Dispensary. Canterbury United F.S. Dispensary. Leichhardt and Petersham Dispensary. M.U. Oddfellows' Med. Inst., Elizabeth Street, Sydney. Marrickville United F.S. Dispensary. N.S.W. Ambulance and Transport Brigade. North Sydney United F.S. People's Prudential Benefit Society. Phœnix Mutual Provident Society. F.S. Lodges at Casino. F.S. Lodges at Lithgow.. F.S. Lodges at Parramatta, Auburn and Lidcombe. Newcastle Collieries — Killingworth, Seaham Nos. 1 and 2, West Wallsend.
TASMANIA. (Hon. Sec., Belrive, Tasmania.)	Medical Officers in all State-aided Hospitals in Tasmania.
NEW ZEALAND: WELLINGTON DIVISION. (Hon. Sec., Wellington.)	Friendly Society Lodges, Wellington, N.Z.

Diary for the Month.

Feb. 26.—N.S.W. Branch, B.M.A., Medical Politics Committee; Organization and Science Committee.
Feb. 27.—Vic. Branch, B.MA., Council.
Mar. 1.—Q. Branch, B.M .A.
Mar. 5.—N.S.W. Branch, B.M.A., Ethics Committee.
Mar. 6.—Vic. Branch, B. M.A.
Mar. 7.—N.S.W. Branch, B.M.A., Last Day for Nomination of Candidates for Branch Council.
Mar. 12.—N.S.W. Branch, B.M.A., Executive and Finance Committee.
Mar. 12.—Tas. Branch, B.M.A., Council and Branch.
Mar. 14.—Vic. Branch, B.M.A., Council.
Mar. 19.—N.S.W. Branch, B.M.A., Medical Politics Committee; Organization and Science Committee.
Mar. 20.—W. Aust. Branch, B.M.A.
Mar. 20.—South Sydney Med. Assoc. (N.S.W.).
Mar. 20.—Western Suburbs Med. Assoc. (N.S.W.).
Mar. 21.—N.S.W. Branch, B.M.A., Return of Ballot Papers for Election of Branch Council.
Mar. 22.—Q. Branch B.M.A. Council.
Mar. 22.—N.S.W. Branch, B.M.A., Annual Meeting.

EDITORIAL NOTICES.

Manuscripts forwarded to the office of this Journal cannot under any circumstances be returned.

Original articles forwarded for publication are understood to be offered to *The Medical Journal of Australia* alone, unless the contrary be stated.

All communications should be addressed to "The Editor," *The Medical Journal of Australia*, B.M.A. Building, 30-34 Elizabeth Street, Sydney, New South Wales.